

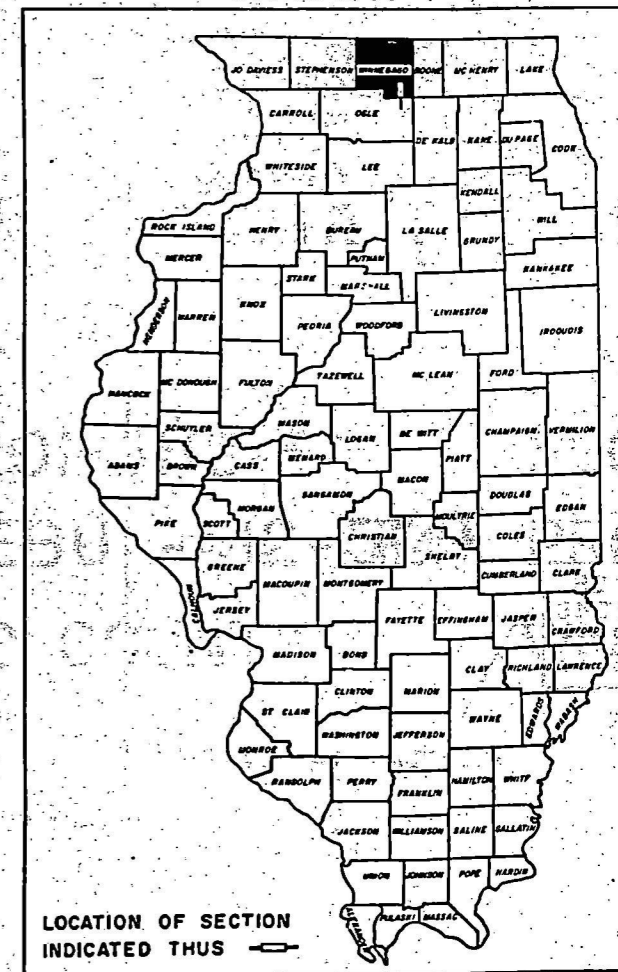
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

F. A. ROUTE 412
SECTION 201-3HB-3
F. A. PROJECT EBU -412-5(4)
WINNEBAGO COUNTY

FEDERAL-AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
412	201-3HB-3	WINNEBAGO	38	1

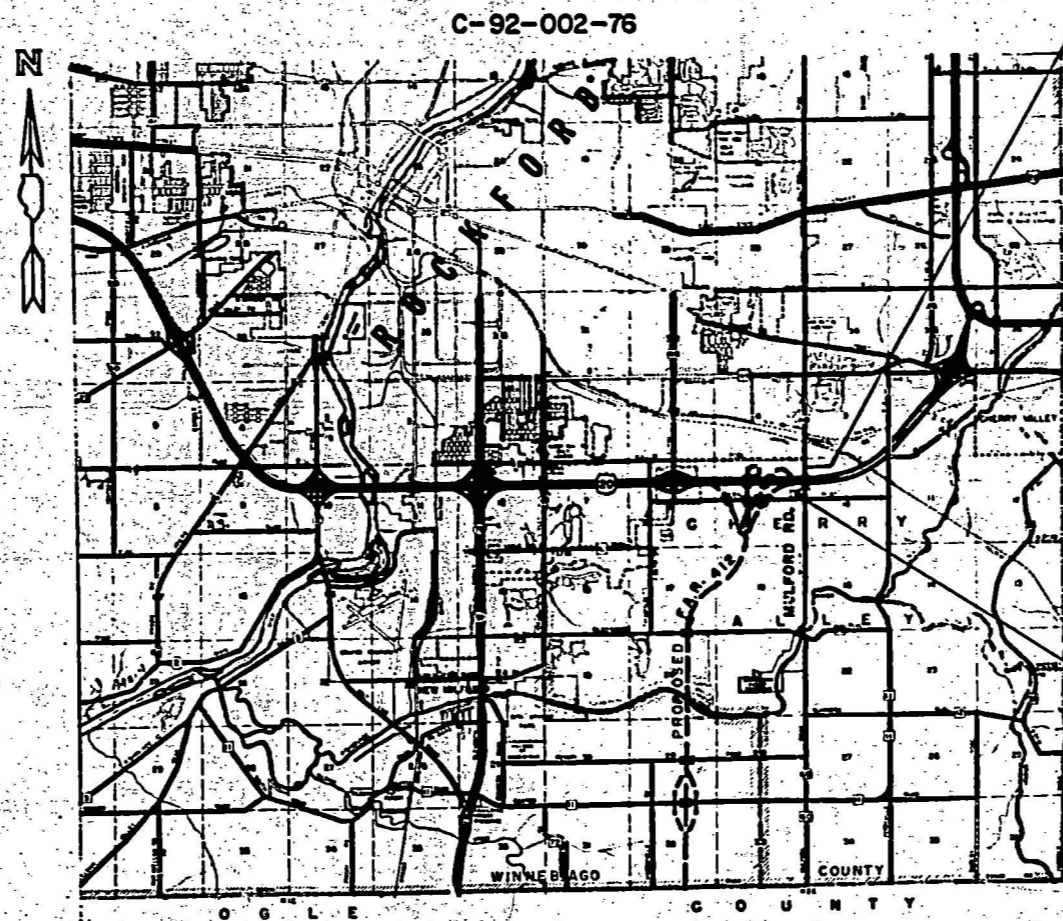
P92-026-74



PROJECT ENDS
MULFORD ROAD
STATION 60+00.00

SECTION 201-3HB-3
INCLUDES THE REMOVAL AND COMPLETE RECONSTRUCTION OF A TWO SPAN (1 AT 94'-0" & AT 131'-0") WELDED PLATE GIRDER STRUCTURE CARRYING CH ROUTE 60 (MULFORD ROAD) OVER F.A. ROUTE 194 (U. S. ROUTE 20) AT STATION 753+57.61 ALONG CENTERLINE F. A. ROUTE 194.

PROJECT BEGINS
MULFORD ROAD
STATION 39+18.00



LAYOUT
SCALE 1" = 1 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Feb. 5 1976
D. E. Sumraski
DISTRICT ENGINEER

EXAMINED March 17 1976
[Signature]
ENGINEER OF PLANS AND CONTRACTS

PASSED March 17 1976
Thomas R. Coyle
ENGINEER OF DESIGN

APPROVED March 17 1976
[Signature]
DIRECTOR OF HIGHWAYS

2-113

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR DATE

753+57.61

101-0131

DESIGN DESIGNATION
265 (95) COLLECTOR 0.65(BIT CONC-20)

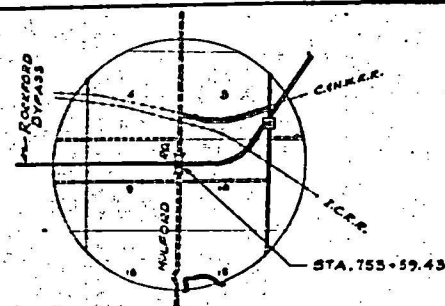
101-0131

CONTRACT NO. 92127

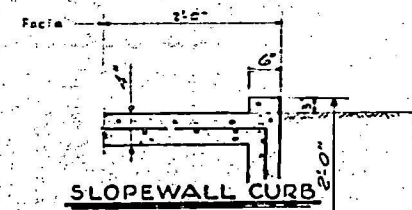
NET LENGTH OF PROJECT EBU-412-5(4) = 0.00 FT = 0.000 MILES
GROSS LENGTH OF IMPROVEMENT = 2082.00 FEET = 0.394 MILES = 0.634 KILOMETERS.
NET LENGTH OF IMPROVEMENT = 2082.00 FEET = 0.394 MILES = 0.634 KILOMETERS

[Signature]

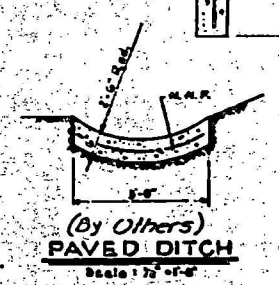
ROUTE NO.	SEC.	COUNTY	TOTAL P.C.E.T.	DATE
FA 412	20-3-62	WINNEBAGO	38	8 A.
STA.	TO STA.			
178.6	196.6		196.6	



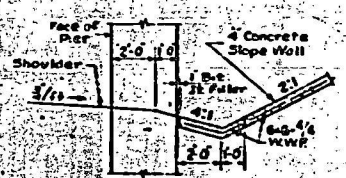
VICINITY MAP
T-43 N R-2 E 30-0 P.M.



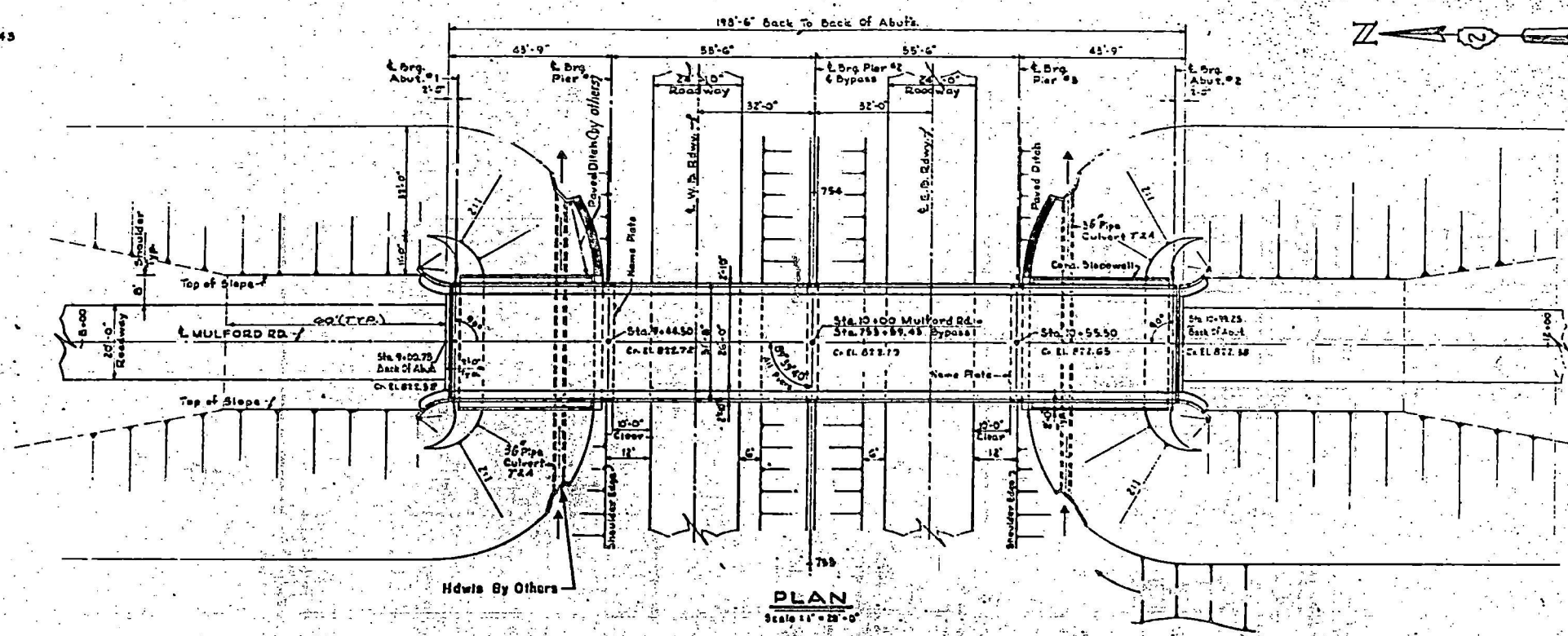
SLOPEWALL CURB



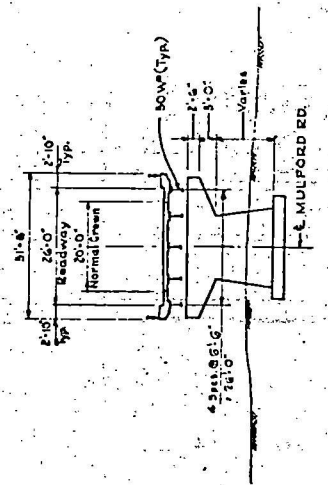
(By Others)
PAVED DITCH
Scale 1/2" = 1'-0"



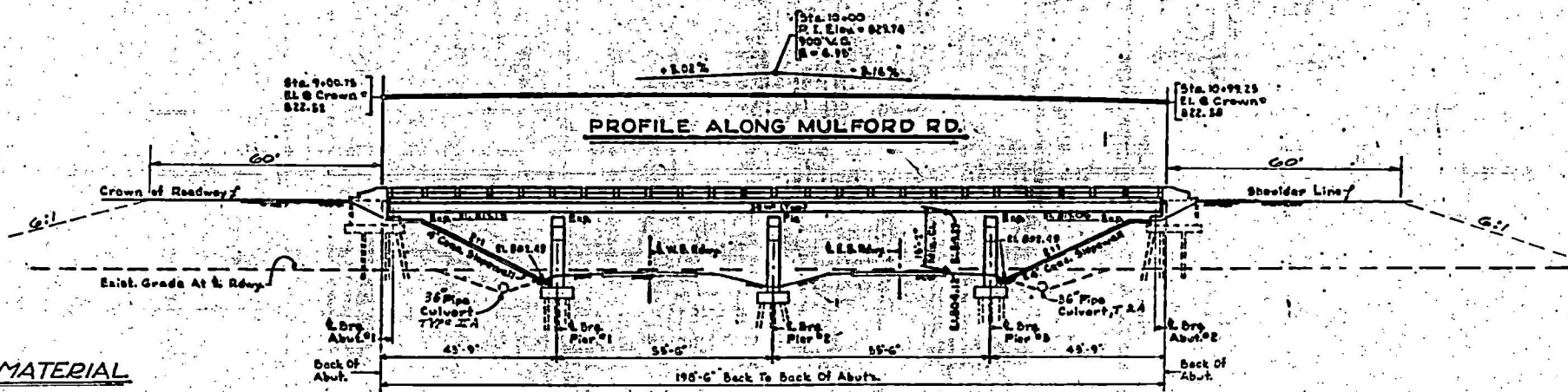
DETAIL OF SLOPEWALL AT PIER
Scale 1/2" = 1'-0"



PLAN
Scale 1" = 25'-0"



TYPICAL BRIDGE SECTION
Scale 1" = 20'-0"



ELEVATION
Scale 1" = 20'-0"

BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUB.	TOTAL
Class A Excavation for Structure	Cu. Yd.		272	272
Class X Concrete	Cu. Yd.	174.4	227.4	401.8
Reinforcement Bar	Lb.	17274	17274	34548
Fastening & Erecting Structural Steel	Lb.	131870		131870
Concrete Pile	ln. ft.		625	625
Concrete Test Pile	each		1	1
Crossed Timber Pile	ln. ft.		810	810
Timber Test Pile	each		1	1
Metal Pile Shoe	each		54	54
Metal Handrail	ln. ft.	393		393
Name Plate	each		2	2
Slope Wall (4')	Sq. Yd.		366	366

DESIGN DATA

SPECIFICATIONS:
A.A.S.H.O. Dated 1957. Standard Specifications for Road and Bridge Construction Dated January 2, 1958.

LOADING:
L.L. - H15 - 512-44
D.L. - 20 P.S.F. Future Wearing Surface

STRESSES:
CONCRETE
f_c = 400 P.S.I. - Super & Sub.
f_c = 75 P.S.I. - Pier Footings
M = 10
STEEL
Structural = 18000 P.S.I.
Reinforcing = 20000 P.S.I.

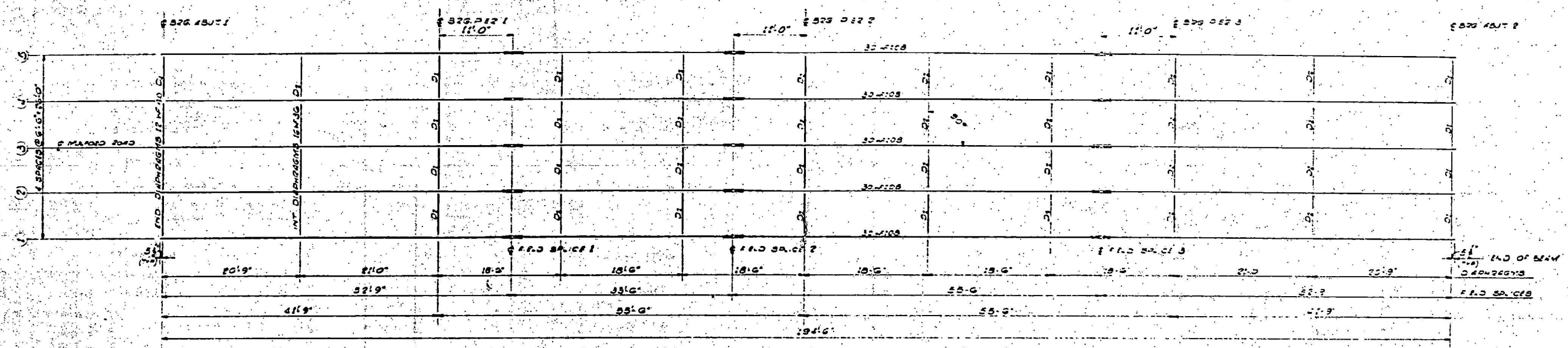
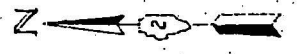
STATION 753+59.43
BUILT 196 BY
STATE OF ILLINOIS
FA DT. 197 SEC. 4H2
FA PROJ. F-2846
LOADING H15-512

THIS SHEET TO BE USED FOR
CONTRACTORS REFERENCE
ONLY

ILLINOIS DIVISION OF HIGHWAYS
ROCKFORD BYPASS
ROUTE 194
PROJECT 57-254(18) SECTION 4H2
WINNEBAGO COUNTY, ILL.
GENERAL PLAN

SEE STATE OF ILL. ST. 197
NAME PLATE

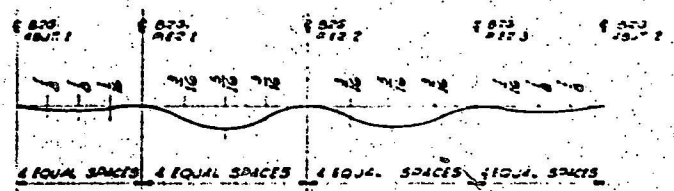
DESIGNED BY: [Name]
CHECKED BY: [Name]
DATE: [Date]



FRAMING PLAN
 SCALE: 1/8" = 1'-0"

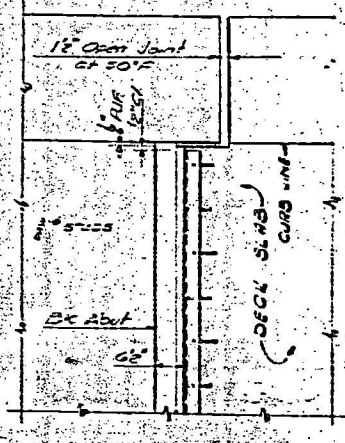
ELEVATIONS @ SPICES ARE AT TOP OF BEAMS, NOT @ TOP OF SPICE PLATES.

BEAM NO.	LOCATION	SPICE 1	FIELD 1	FIELD 2	SPICE 2	FIELD 3	SPICE 3	ABUT 2
1	TOP OF SLAB	822.40	822.59	822.67	822.67	822.66	822.56	822.57
1	TOP OF BEAM	821.87	821.95	821.95	822.03	822.01	821.91	821.87
2	TOP OF SLAB	822.50	822.69	822.77	822.77	822.76	822.66	822.67
2	TOP OF BEAM	821.97	822.05	822.08	822.13	822.11	822.02	821.97
3	TOP OF SLAB	822.53	822.72	822.75	822.80	822.79	822.69	822.65
3	TOP OF BEAM	821.93	822.04	822.11	822.16	822.14	822.05	821.97
4	TOP OF SLAB	822.30	822.69	822.78	822.77	822.76	822.66	822.67
4	TOP OF BEAM	821.72	821.85	821.93	821.91	821.90	821.81	821.79
5	TOP OF SLAB	822.40	822.59	822.67	822.67	822.66	822.56	822.57
5	TOP OF BEAM	821.87	821.95	821.95	822.03	822.01	821.91	821.87

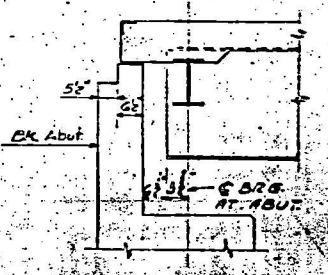


DEAD LOAD DEFLECTION DIAGRAM
 FOR S. 28 ONLY

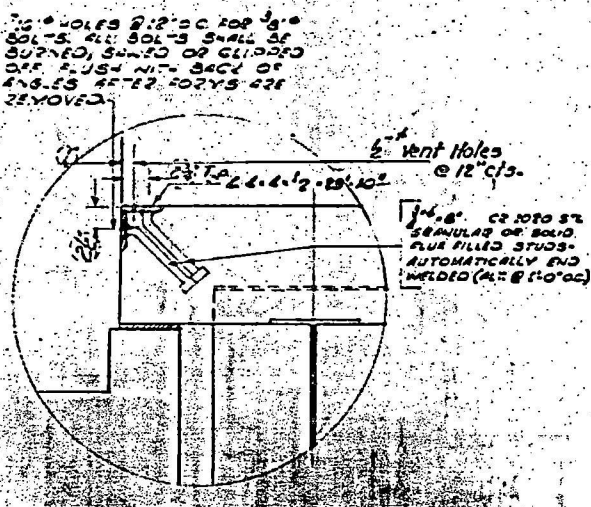
Top of flange elevations do not include any allowance for deflection and are to be used for fabrication of structural steel.



PLAN



SECTION



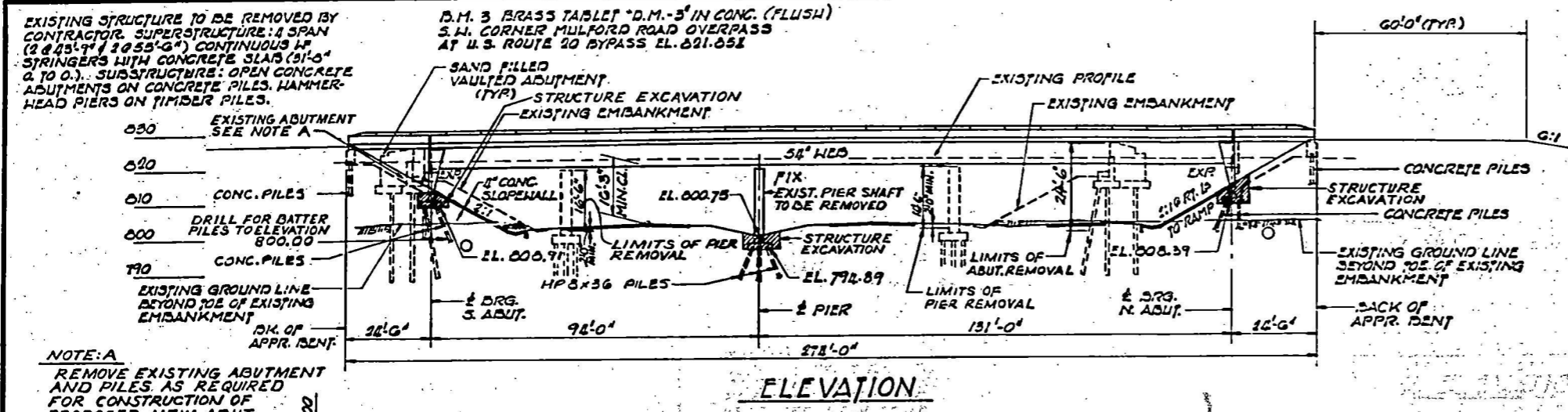
DETAIL A

EXPANSION JOINT DETAILS

THIS SHEET TO BE USED FOR CONTRACTORS REFERENCE ONLY.

FOR STEEL DETAILS SEE SHEET N.P.10.
 ILLINOIS DIVISION OF HIGHWAYS
 ROCKFORD BYPASS
 F. A. ROUTE 194
 PROJECT SECTION 4HB2
 WINNEBAGO COUNTY
 STEEL FRAMING PLAN
 Designed By: Drawn By: J.C.M. Checked By:

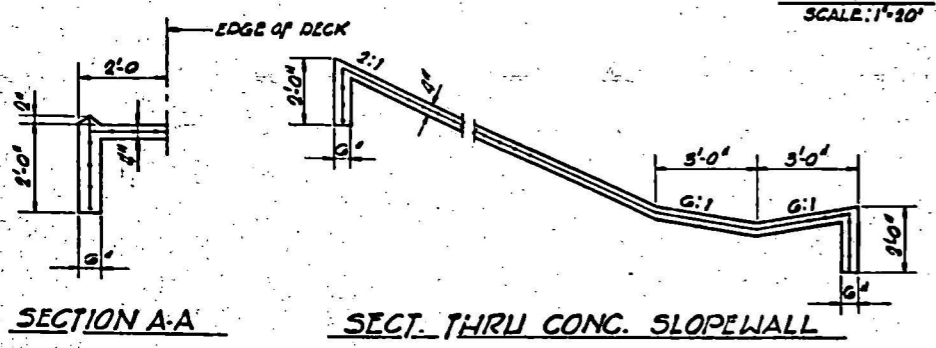
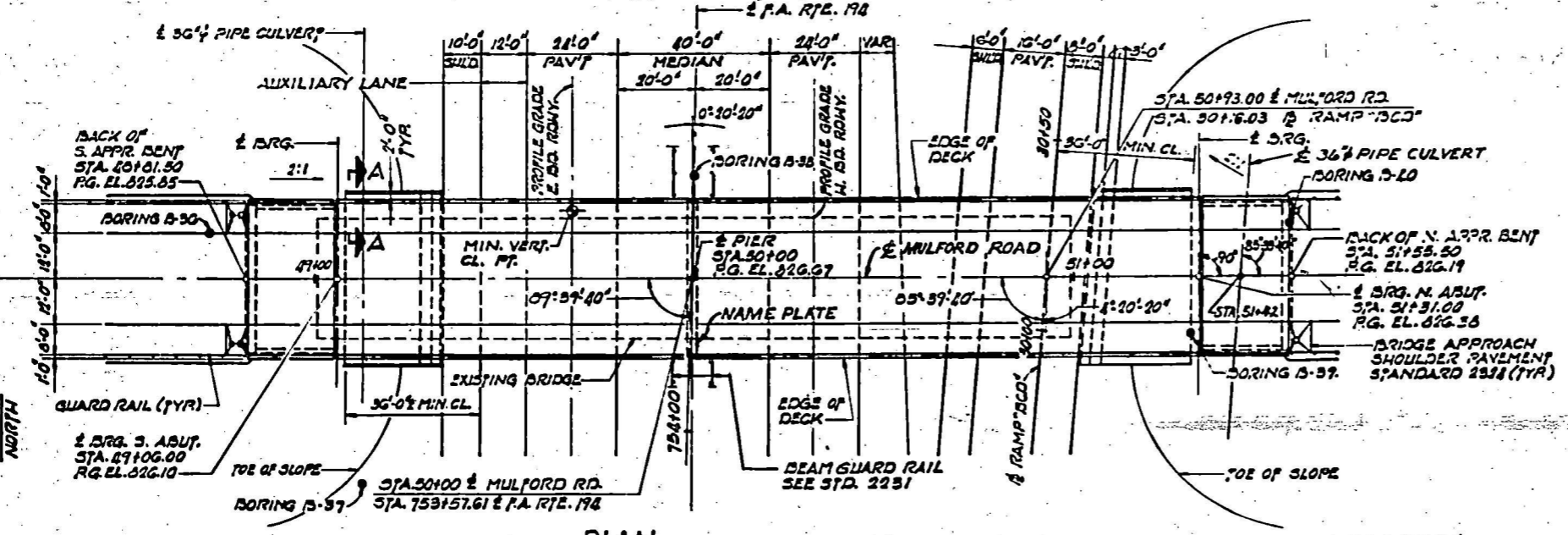
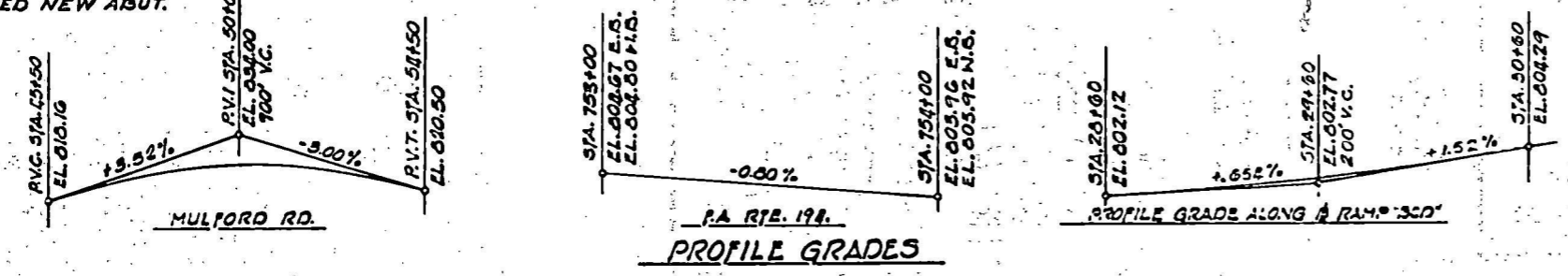
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 412	201-3HB-3	WINNEBAGO	38	9
STA. TO STA.		PROJECT		
SHEET 1 OF 17				



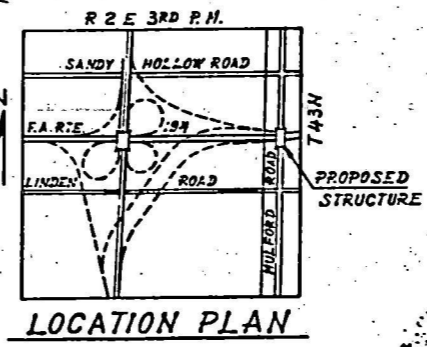
NOTE: A
REMOVE EXISTING ABUTMENT AND PILES AS REQUIRED FOR CONSTRUCTION OF PROPOSED NEW ABUT.

INDEX OF SHEETS

1. GENERAL PLAN AND ELEVATION
2. GENERAL NOTES, QUANTITIES & NAME PLATE
3. DECK REINFORCEMENT PLAN - SPANS 1 & 4
4. DECK REINFORCEMENT PLAN - SPANS 2 & 3
5. DECK DETAILS - SPANS 2 AND 3
6. NEOPRENE EXPANSION JOINT
7. ALUMINUM RAILING DETAILS
8. TOP OF SLAB ELEVATIONS
9. TOP OF SLAB ELEVATIONS
10. FRAMING PLAN - SPANS 2 AND 3
11. STEEL DETAILS
12. CROSS FRAMES
13. SOUTH ABUTMENT
14. NORTH ABUTMENT
15. ABUTMENT DETAILS
16. PIER
17. CONCRETE PILE DETAILS



DESIGN LOAD
 L.T. = HS20-44
 FUTURE D.L. = 25 P.S.F.
DESIGN STRESSES
 $f_c = 3,500$ P.S.I.
 $f_s = 1,200$ P.S.I. (DECK SLAB SPAN 2 & 3)
 $f_s = 1,400$ P.S.I. (SUBSTRUCTURE, CURB, PARAPET & DECK SLAB - SPANS 1 & 4)
 $f_s = 1,000$ P.S.I. (WITH EARTH PRESSURE)
 $v = 58.2$ P.S.I. (FOOTINGS)
 $n = 10$
REINFORCING STEEL
 $f_s = 20,000$ P.S.I.
STRUCTURAL STEEL
 $f_s = 20,000$ P.S.I. (M 183)
 MAX. L.L. DEFLECTION
 $L/17500$ (COMPOSITE)
 DESIGN SPECIFICATIONS
 AASHTO 1973 AND INTERIMS AS APPLICABLE



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
Carl E. Shuman
 Member of Bridges & Traffic Structures

**GENERAL PLAN AND ELEVATION
 C.H. ROUTE 60 (MULFORD ROAD)
 OVER F.A. ROUTE 194
 PROJECT
 SECTION 201-3HB-3
 WINNEBAGO COUNTY
 STATION 753+57.61**

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 JOB NO. 1605-L
 233 N. MICHIGAN AVE. CHICAGO, ILLINOIS

GENERAL NOTES

ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN.

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4" DIAMETER, OPEN HOLES 13/16" DIAMETER, UNLESS OTHERWISE NOTED.

CALCULATED WEIGHT OF STRUCTURAL STEEL = 399,300 LBS.

THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING CROSS FRAMES OVER SUPPORTS

SLOPEWALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, WEIGHING 58 LBS. PER 100 SQ. FT.

THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE IN A PERMANENT LOCATION AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES.

THE CONTRACTOR SHALL DRIVE ONE STEEL TEST PILE IN A PERMANENT LOCATION AT THE PIER AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.

THE CONCRETE RAIL SECTION ABOVE THE MANDATORY CONSTRUCTION JOINT AT TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF HANDMAIL CONCRETE.

PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF ± 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS.

THE MAIN LOAD CARRYING COMPONENTS SUBJECT TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ARE THE FLANGES AS DESIGNATED IN THE ELEVATION VIEW ALONG WITH THE WEBS, AND ALL SPLICE PLATES OF THE STEEL GIRDERS.

FOR BORING DATA, SEE SPECIAL PROVISIONS.

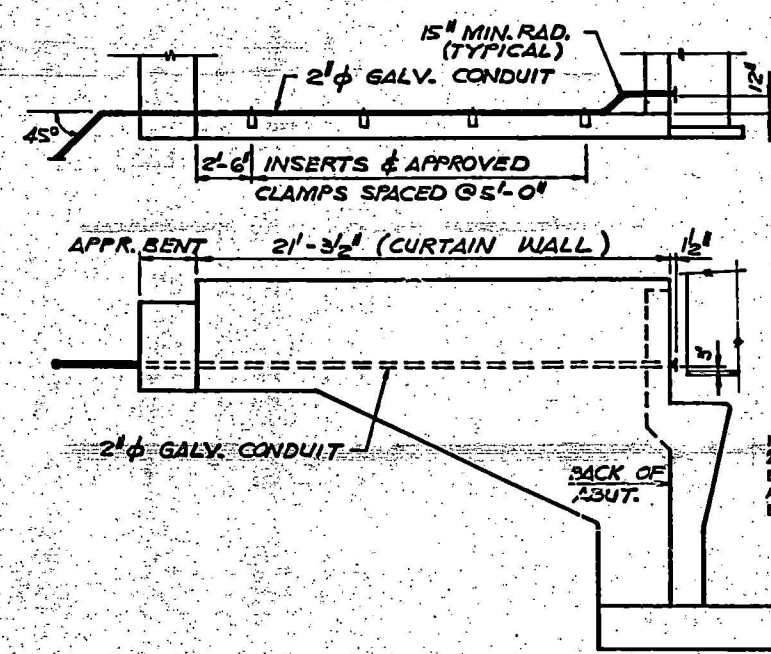
Pouring of the deck slab must begin at the South Abutment & proceed toward the North Abutment.

BILL OF MATERIALS

ITEM	UNIT	SUB	SUPER	TOTAL
BITUM CONCR. SURFACE COURSE, MIXTURE D, CLASS I	TON	-	96	96
STRUCTURE EXCAVATION	CU. YD.	620	-	620
PROTECTIVE COAT	SQ. YD.	-	203	203
CLASS X CONCRETE	CU. YD.	268.9	379.3	648.2
STUD SHEAR CONNECTORS	EACH	-	2,572	2,572
FURNISHING & ERECTING STRUCTURAL STEEL	L. SUM	-	-	1
ALUMINUM RAILING	LIN. FT.	-	543	543
REINFORCEMENT BARS	LBS.	36,380	89,390	125,770
CONCRETE PILES	LIN. FT.	1,234	-	1,234
STEEL PILES, HP 8x16	LIN. FT.	170	-	170
TEST PILE CONCRETE	EACH	2	-	2
TEST PILE STEEL, HP 8x16	EACH	1	-	1
NAME PLATES	EACH	1	-	1
SLOPE WALL, 4 INCH	SQ. YD.	383	-	383
WATERPROOFING MEMBRANE SYSTEM	SQ. YD.	-	1,167	1,167
PREFORMED JOINT SEALER (2'2")	LIN. FT.	-	42	42
SAND BACKFILL	CU. YD.	292	-	292
REMOVAL OF EXISTING STRUCTURES	L. SUM	-	-	1
NEOPRENE EXPANSION JOINT (2')	LIN. FT.	-	42	42
EXPANSION BOLTS 3/4" DIAMETER	EACH	16	-	16
PERMANENT SURVEY MARKER, TYPE I	EACH	-	1	1

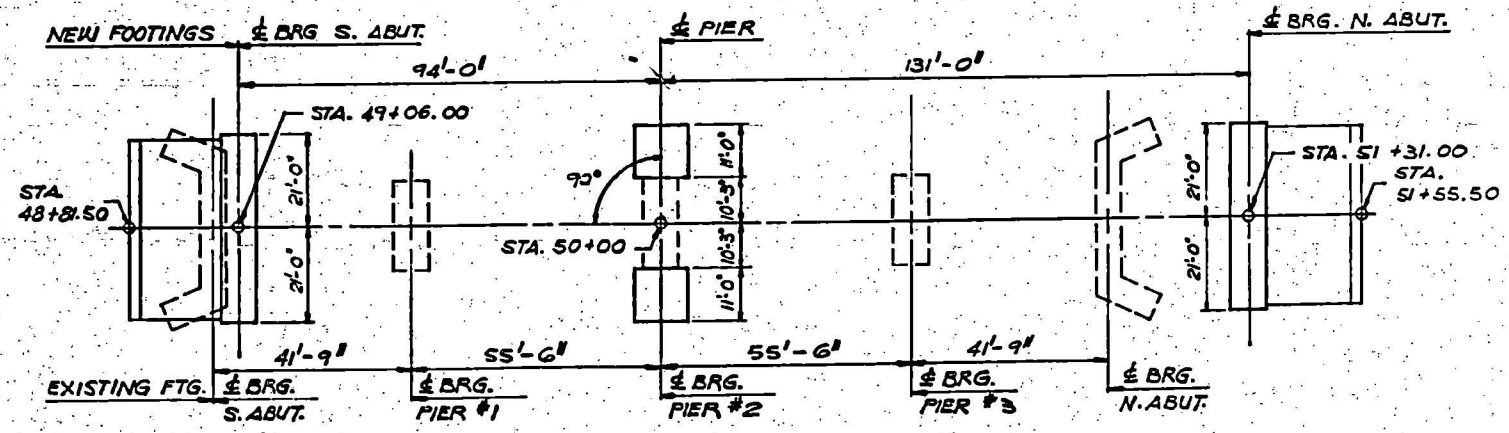
STATION 753+59.43
 BUILT 1977 BY
 STATE OF ILLINOIS
 F.A. RT. 194 SEC. 201-3HB-3
 F.A. PROJECT EBU-412-5(4)
 LOADING HS 20

LETTERING FOR NAME PLATE
 (SEE STATE OF ILLINOIS STD. 2113)
 1 REQ'D.



ELECTRICAL DETAILS AT ABUTMENTS
 4 THUS

NOTE:
 2" GALVANIZED CONDUIT SHALL BE SCHEDULE 40 PIPE. EXTEND TO CLEAR END OF WINGWALL AND TERMINATE AT A POINT OUTSIDE THE SHOULDER, THREAD AND CAP EACH END. COST INCIDENTAL TO CONTRACT.



NOTE:
 EXISTING FOOTING SHOWN [---]
 FOOTINGS TO BE POURED SHOWN [=====]

FOOTING LAYOUT

GENERAL NOTES, QUANTITIES AND NAME PLATE
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
PROJECT
SECTION 201-3HB-3
WINNEBAGO COUNTY
STATION 753+57.61

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 JOB NO. 1605-L
 223 N. MICHIGAN AVE., CHICAGO, ILLINOIS

GENERAL NOTES

ALL REINFORCEMENT BARS SHALL BE LAPRED 24 DIAMETERS UNLESS OTHERWISE SHOWN. FASTENERS SHALL BE HIGH STRENGTH BOLTS, BOLTS 3/4" DIAMETER, OPEN HOLES 1 1/2" DIAMETER, UNLESS OTHERWISE NOTED. CALCULATED WEIGHT OF STRUCTURAL STEEL = 399,300 LBS. THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FIFTH THE SPAN LENGTH EACH WAY FROM THE RIB SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

ANCHOR BOLTS SHALL BE SET BEFORE ROUTING CROSS TRAILERS OVER SUPPORTS.

STAIRWALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" X 6" MESH, WEIGHING 30 LBS. PER 100 SQ. FT.

THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE IN A PERMANENT LOCATION AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES.

THE CONTRACTOR SHALL DRIVE ONE STEEL TEST PILE IN A PERMANENT LOCATION AT THE PILE AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.

THE CONCRETE WALL SECTION ABOVE THE MANDATORY CONSTRUCTION JOINT AT TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF STANDARD CONCRETE.

PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.

ROUTING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATION WITHIN A TOLERANCE OF 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRABBING THE SURFACE OR BY SHIMMING THE BEAMS. TWO (2) ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEAM, AND IN ADDITION TO ALL OTHER PLATES OR SHIMS.

THE MAIN LOAD CARRYING COMPONENTS SUBJECT TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ARE THE FLANGES AS DESIGNATED IN THE ELEVATION VIEW ALONG WITH THE WEB, AND ALL BRACE PLATES OF THE STEEL GIRDERS.

FOR BORING DATA, SEE SPECIAL PROVISIONS.

Routing of the deck slab must begin at the South Abutment & proceed toward the North Abutment.

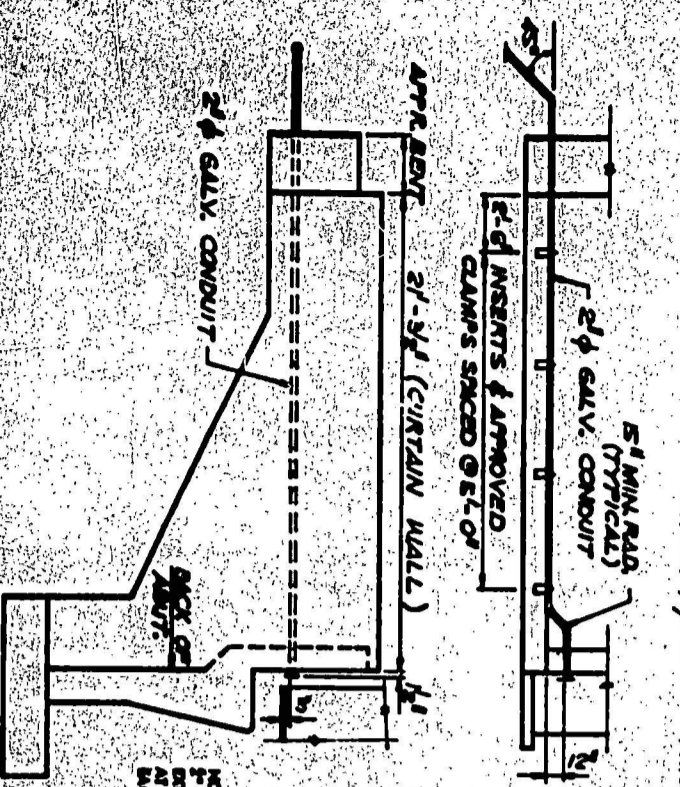
BILL OF MATERIALS

ITEM	UNIT	SUB	SURF	TOTAL
BITUM CONCRETE SURFACE COURSE, MATRIEX DCLASS 1	TON	-	96	96
STRUCTURE EXCAVATION	CU. YD.	620	-	620
PROTECTIVE COAT	SQ. YD.	-	203	203
CLASS X CONCRETE	CU. YD.	248.9	379.3	628.2
STUD SHEAR CONNECTORS	EACH	-	2,592	2,592
FINISHING & BEGING STRUCTURAL STEEL	L.SUM	-	-	1
ALUMINUM BAILING	LN. FT.	-	543	543
REINFORCEMENT BARS	LBS.	378,901	89,399	468,300
CONCRETE PILES	LN. FT.	1,234	-	1,234
STEEL PILES, HP 8X38	LN. FT.	170	-	170

TEST PILE CONCRETE	EACH	2	-	2
TEST PILE STEEL, HP 8X38	EACH	1	-	1
NAME PLATES	EACH	1	-	1
SLOPE WALL, 4 INCH	SQ. YD.	383	-	383
WATERPROOFING MEMBRANE SYSTEM	SQ. YD.	-	1,107	1,107
REINFORCED JOINT SLAB (2'2")	LN. FT.	-	4	4
SAND BACKFILL	CU. YD.	272	-	272
REMOVAL OF EXISTING STRUCTURES	L.SUM	-	-	1
ANCHORING EXPANSION JOINT (2')	LN. FT.	-	42	42
EXPANSION BOLTS 1/4" DIAMETER	DASH.	18	-	18
PERMANENT SURVEY MARKER, TYP. 1	EACH.	1	-	1

STATION 753+51.43
BUILT 1971 BY
STATE OF ILLINOIS
F.A. PROJECT 681-425(3)
LOADING HS 20

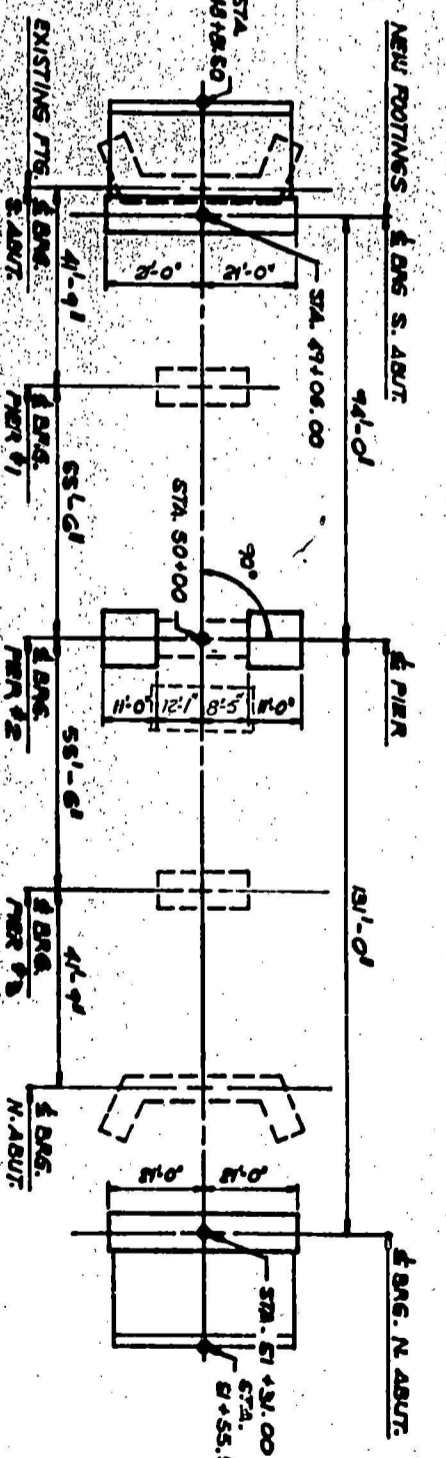
LETTERING FOR NAME PLATE
(SEE STATE OF ILLINOIS STD. 2113)
1 REQ'D.



NOTE:
IF GALVANIZED CONDUIT SHALL BE FORMED & PERMITTED TO GALV. THROUGH AND THROUGH IN A FORM OUTSIDE THE STRUCTURE. TYPICAL AND GALV. CONDUIT SHALL BE PERMITTED TO CONTACT.



FOOTING LAYOUT



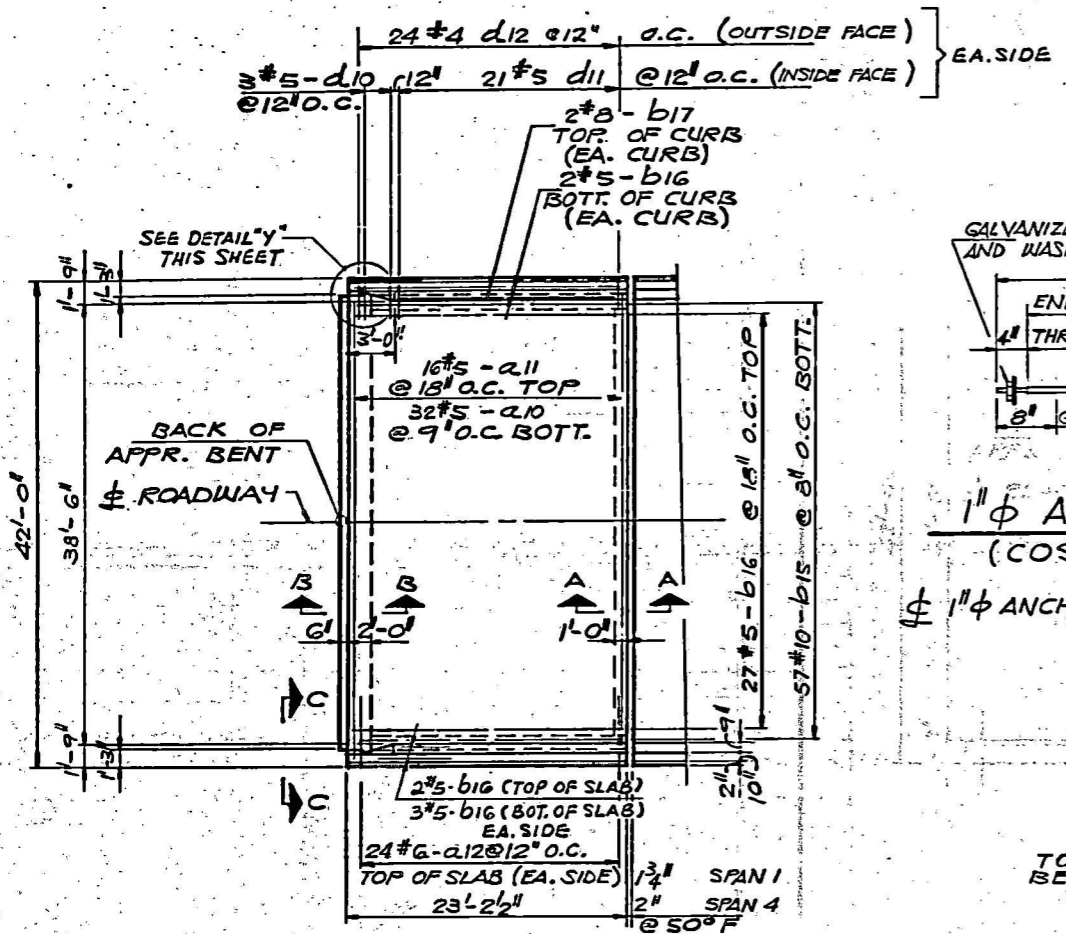
NOTE:
EXISTING FOOTING SHOWN
FOOTINGS TO BE POURD SHOWN

FOR THE CONTRACTOR AND OWNER'S USE
S.A. WHITE CONSULTING ENGINEERS
1111 S. WASHINGTON ST.
CHICAGO, ILL. 60607
PHONE (312) 587-1111
FAX (312) 587-1112
WWW.SAWHITE.COM

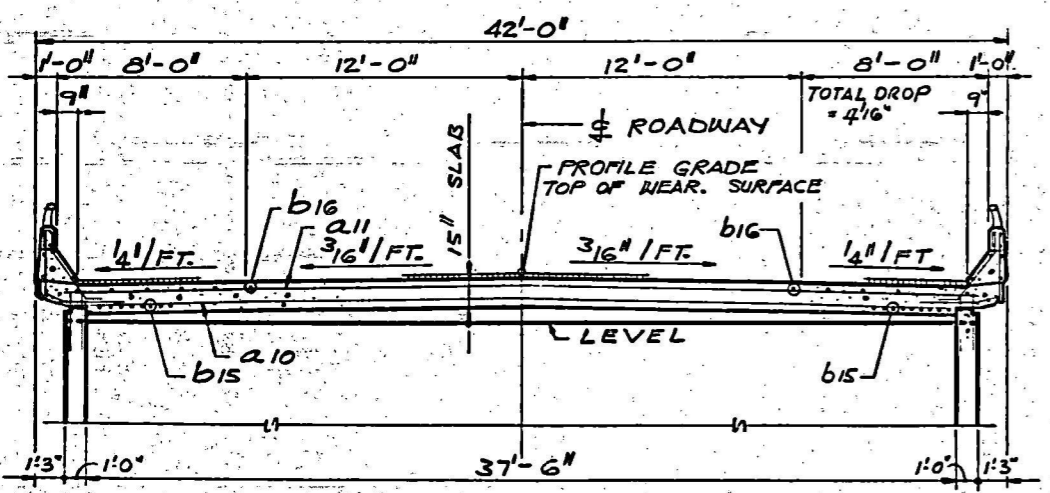
Rev. [] Reinf. Bars SUD from 36,380' to 37,890' Total from 125,170' to 127,280' 7-28-16 D.D.

NO.	REV.	DATE	BY	CHK.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

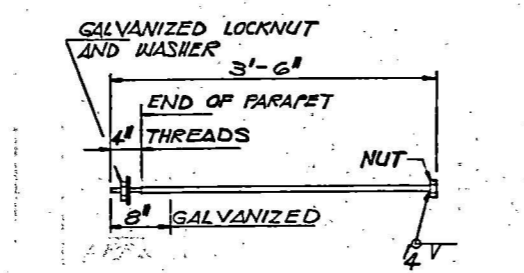
SHEET 2 OF 17



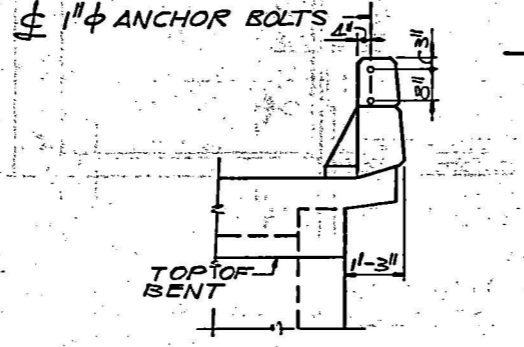
SPAN 1
SPAN 4 SIMILAR



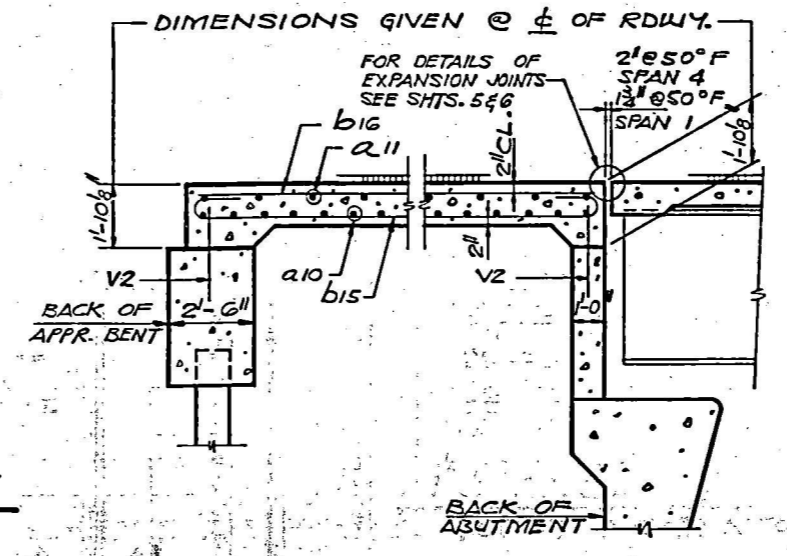
DECK CROSS SECTION



1" ANCHOR BOLT
(COST INCIDENTAL)

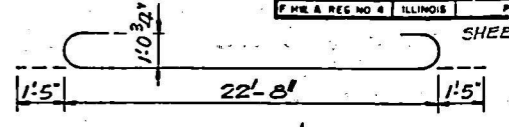


VIEW C-C

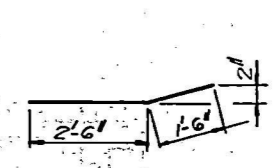


SECTION B-B

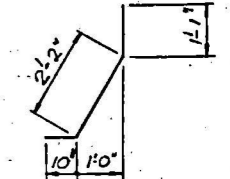
SECTION A-A



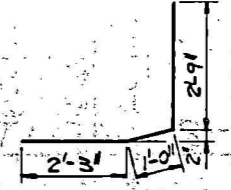
BAR b15



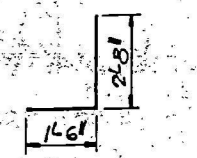
BAR a12



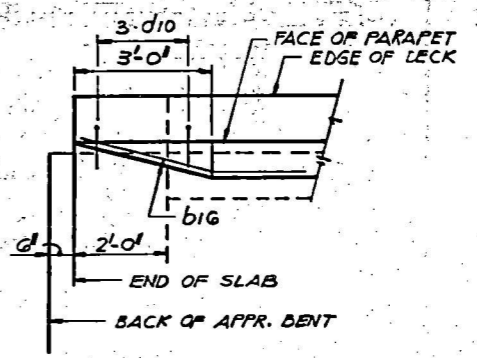
BAR d12



BAR d12



BAR d10



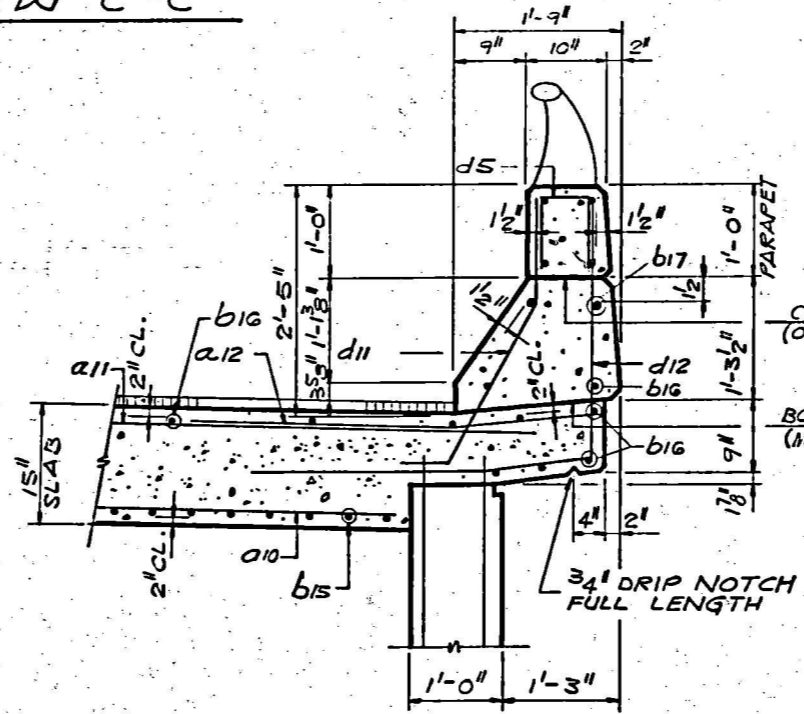
DETAIL "Y"

NOTE!
ALL BAR DIMENSIONS ARE OUT TO OUT.

* BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a10	64	#5	37'-0"	—
a11	32	#5	40'-0"	—
a12	96	#6	4'-0"	—
b15	114	#10	25'-6"	C
b16	74	#5	22'-8"	—
b17	8	#8	22'-6"	—
d10	12	#5	4'-2"	J
d11	84	#5	4'-1"	J
d12	96	#4	6'-0"	J
CLASS X CONCR.			CU.YD.	98.2
REINF. BARS			LBS.	19,920

* BILL OF MATERIAL IS FOR SPAN 1 & SPAN 4
NOTE: PARAPET REINFORCING AND CLASS X CONCRETE ARE BILLED ON SHEET 7.



CURB SECTION

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
JOB NO. 1405-L
233 N. MICHIGAN AVE., CHICAGO, ILLINOIS

DECK REINFORCEMENT PLAN - SPANS 1 & 4
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
PROJECT
SECTION 201-3HB-3
WINNEBAGO COUNTY
STATION 753+57.61

226'3 1/4" END TO END OF PARAPET & CURB

227'4-d 1 @ 12" CTS. (OUTSIDE FACE OF CURB)

227'5-d 2 @ 12" CTS. (INSIDE FACE OF CURB)

182'6-a 3 @ 15" CTS. (TOP OF SLAB)

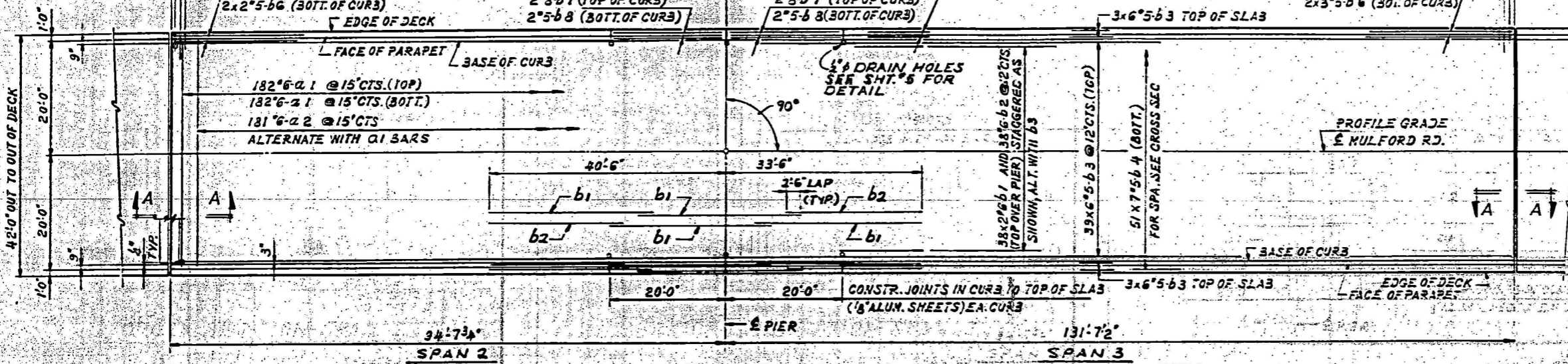
2x2'3-b 5 (TOP OF CURB)
2x2'5-b 6 (BOT. OF CURB)

2'3-b 7 (TOP OF CURB)
2'5-b 8 (BOT. OF CURB)

2'3-b 7 (TOP OF CURB)
2'5-b 8 (BOT. OF CURB)

2x2'6-b 1 AND 2'6-b 2 (TOP OF SLAB OVER PIER)
EAST & WEST SIDE OF SLAB - STAGGER AS SHOWN

2x3'3-b 5 (TOP OF CURB)
2x3'5-b 6 (BOT. OF CURB)



DECK REINFORCEMENT PLAN

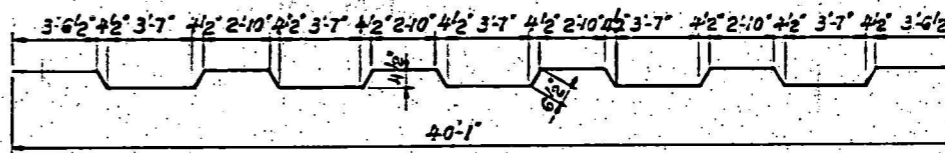


NOTES:

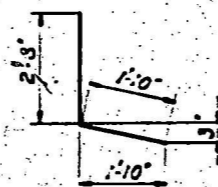
REINFORCEMENT IN EAST CURB SAME AS SHOWN IN WEST CURB
39x6'5-b 5 ETC. INDICATES 39 LINES OF BARS WITH 6 LENGTHS OF BARS PER LINE.
FOR DECK AND CURB CROSS SECTION AND SECTION A-A SEE SH. 5

NOTE!

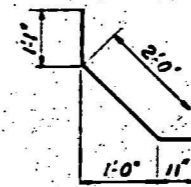
ALL BAR DIMENSIONS ARE OUT TO OUT.
PARAPET REINFORCING AND CLASS X CONCRETE ARE BILLED ON SHEET 7.



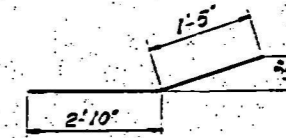
BAR Q2



BAR d1



BAR d2



BAR Q3

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 412	201-3HB-3	WINNEBAGO	39	12
STA.	TO STA.			
FILE & REG. NO. & ALLIANCE	PROJECT			

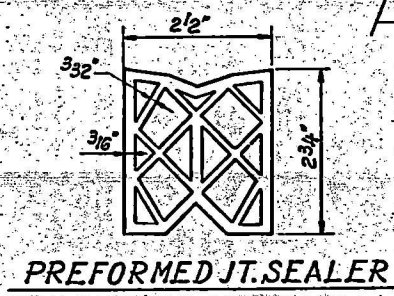
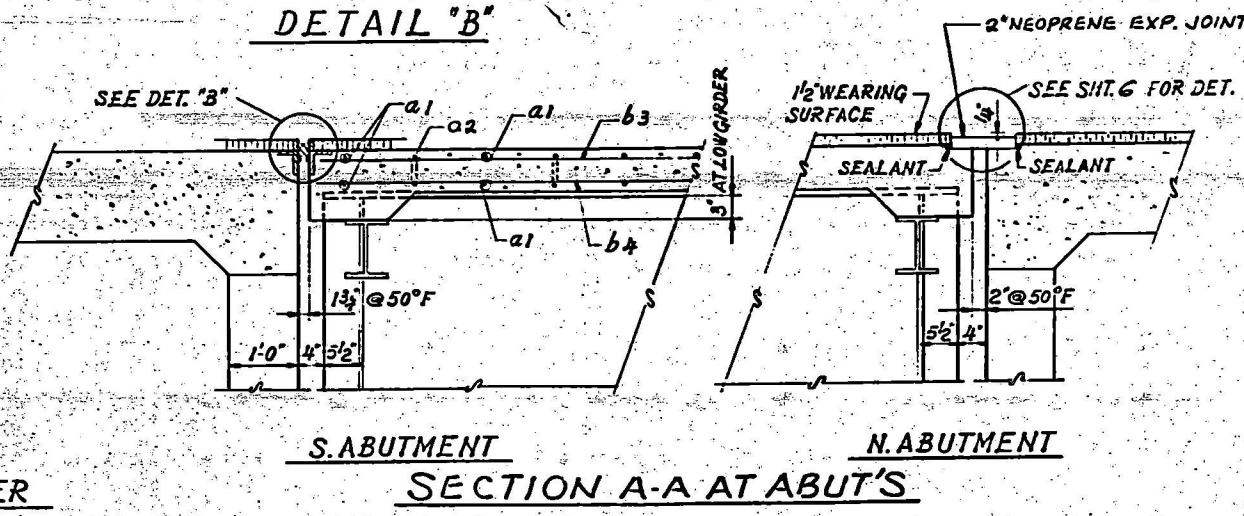
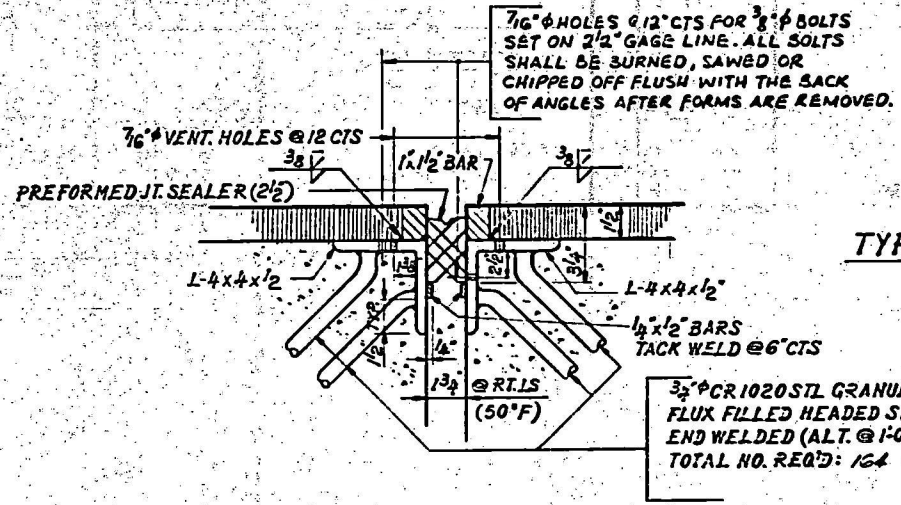
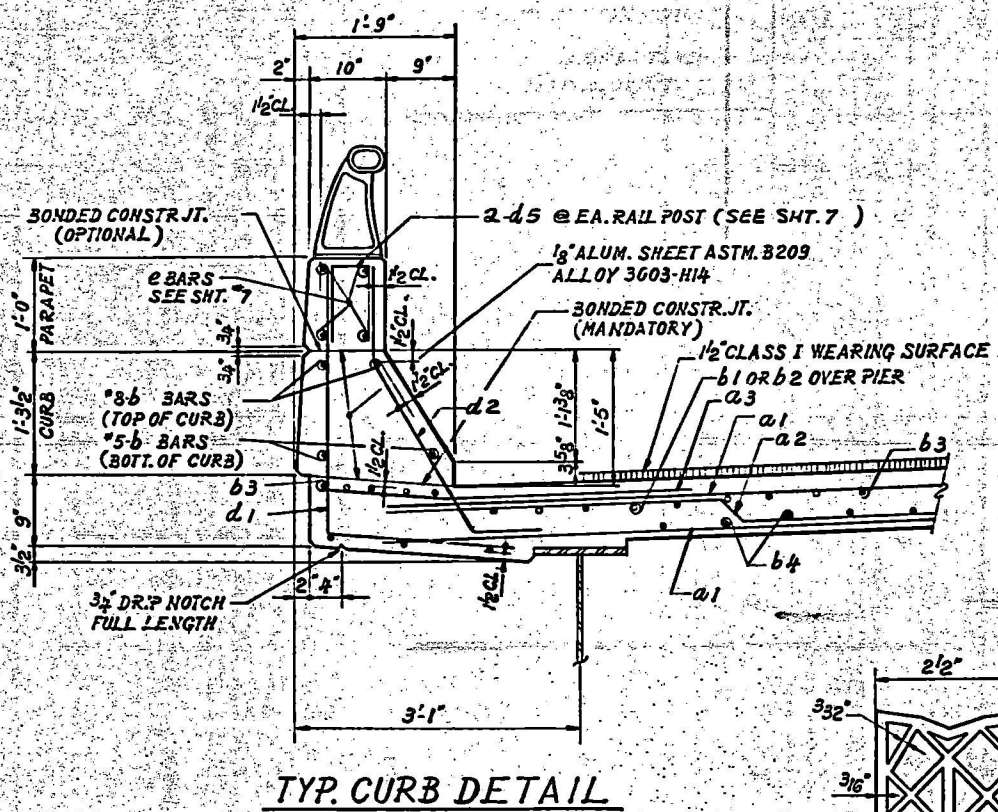
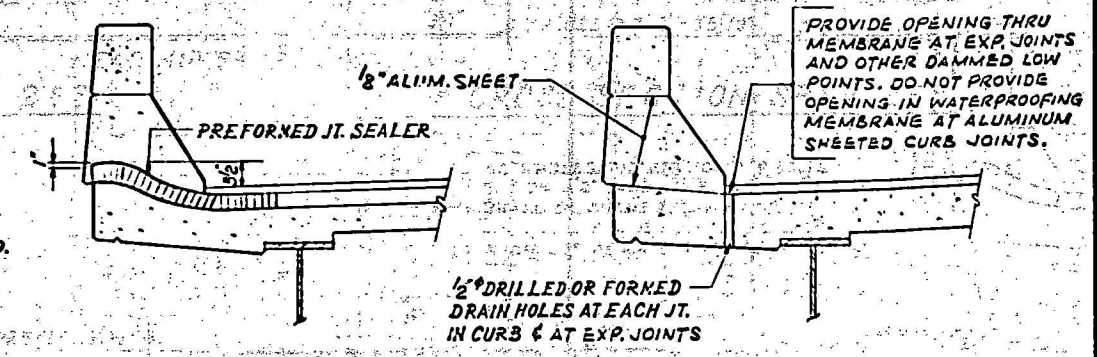
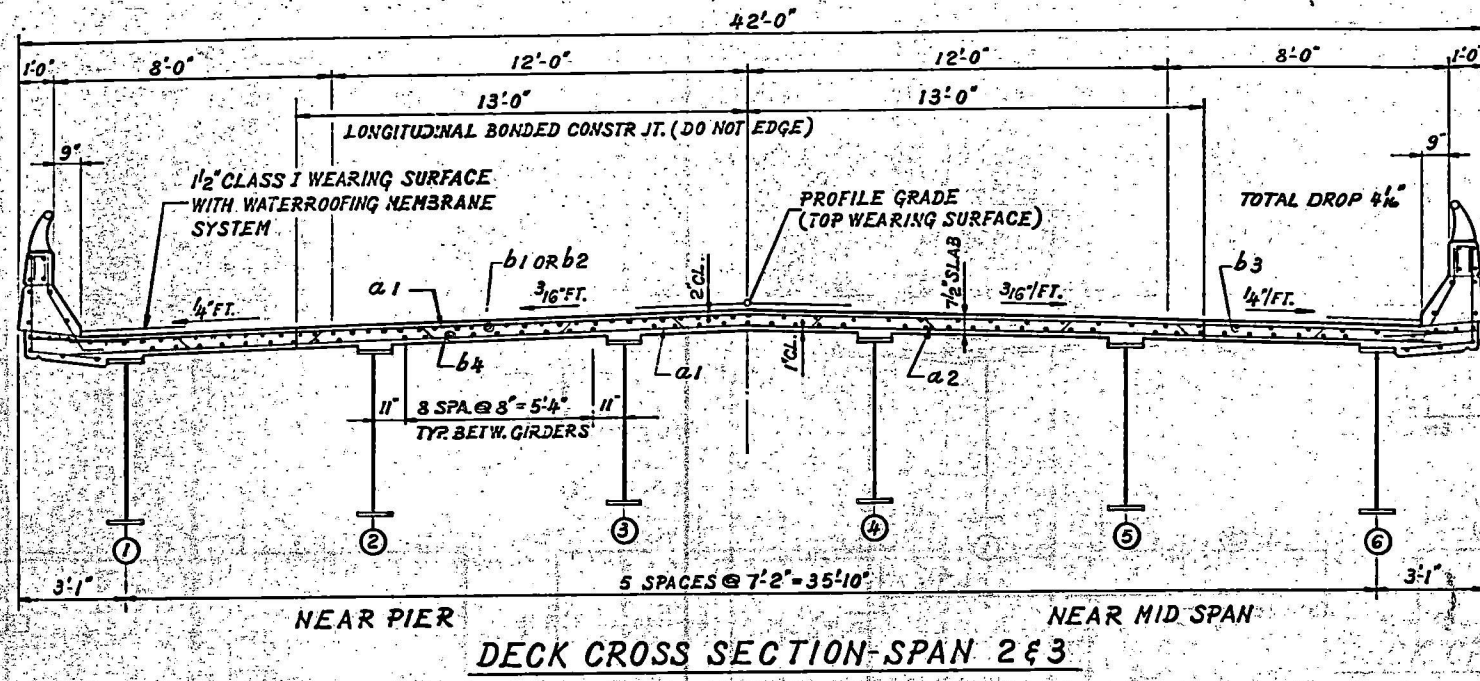
SHEET 4 OF 17

BILL OF MATERIAL

BAR	No	SIZE	LENGTH	SHAPE
Q1	364	#6	40'-0"	—
Q2	181	#6	41'-9"	~
Q3	182	#6	41'-3"	~
b1	84	#6	23'-0"	—
b2	42	#6	23'-0"	—
b3	270	#5	39'-0"	—
b4	357	#5	33'-6"	—
b5	20	#8	38'-6"	—
b6	20	#5	38'-0"	—
b7	8	#8	19'-6"	—
b8	8	#5	19'-6"	—
Q1	227	#4	4'-6"	—
Q2	227	#5	4'-0"	—
CLASS X CONCRETE		CU. YD.	263.5	
REINFORCEMENT BARS		LBS.	67,870	

DECK REINFORCEMENT PLAN - SPANS 2 & 3
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
PROJECT
SECTION 201-3HB-3
WINNEBAGO COUNTY
STATION 753+57.61

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 JOB NO. 1605-L
 233 N. MICHIGAN AVE. CHICAGO, ILLINOIS

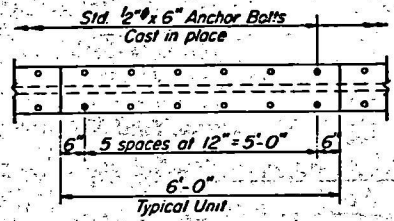
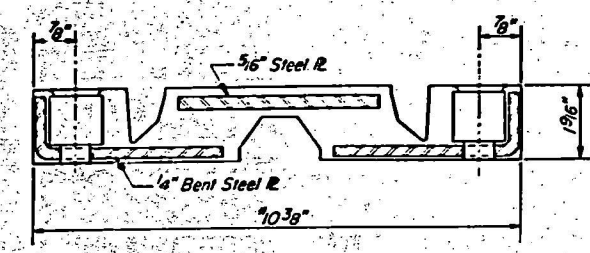


ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
JOB NO. 1605-L
233 N. MICHIGAN AVE. CHICAGO, ILLINOIS

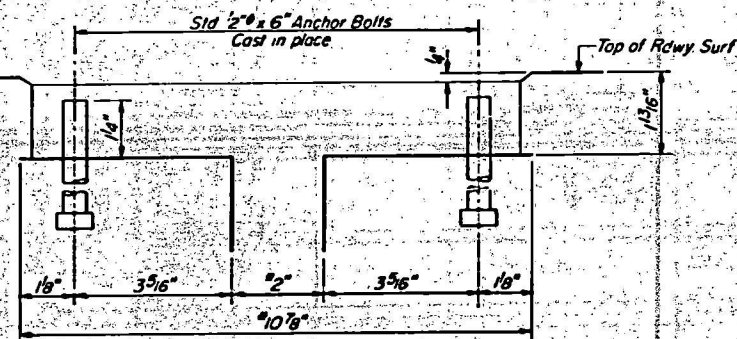
DECK DETAILS-SPANS 2 AND 3
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
PROJECT
SECTION 201-3HB-3
WINNEBAGO COUNTY
STATION 753+ 57.61

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 12	201-3HB-3	WINNEBAGO	58	14
STA.		TO STA.		
FILE & REG NO. 4		ILLINOIS PROJECT		

SHEET 6 OF 17



PLAN

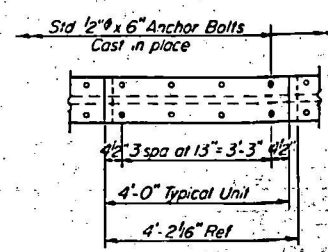
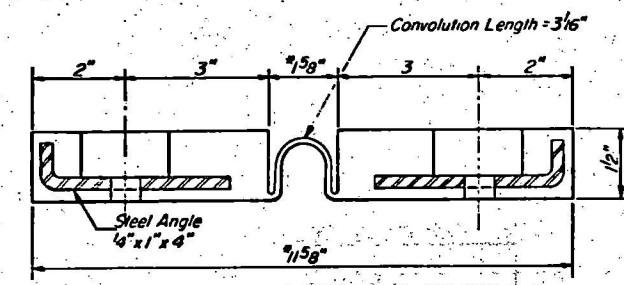


CROSS SECTION

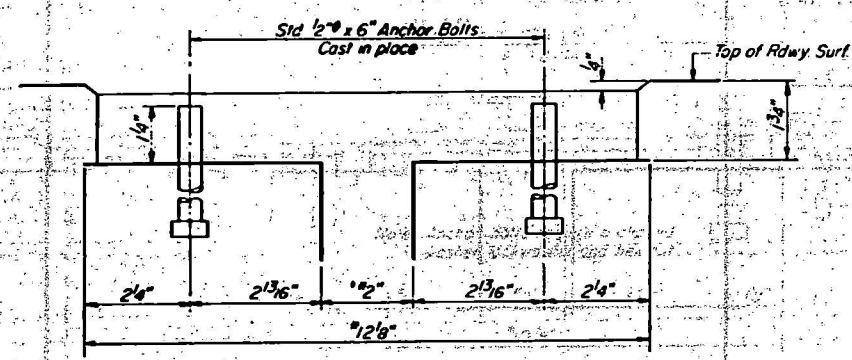
At 50°F
Dimensions are at right angles

Note: Anchor bolts require a clipped washer, lockwasher and hex nut.

TRANSFLEX MODEL 200A
(Structural Rubber Products Co.)



PLAN

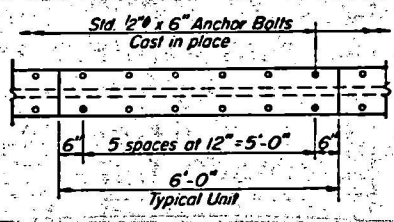
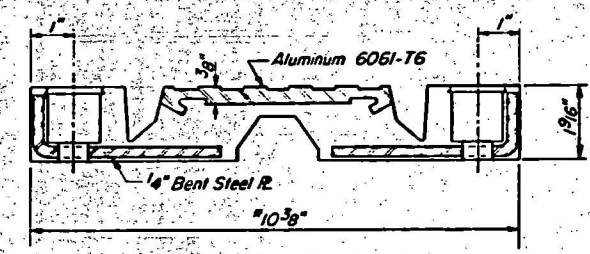


CROSS SECTION

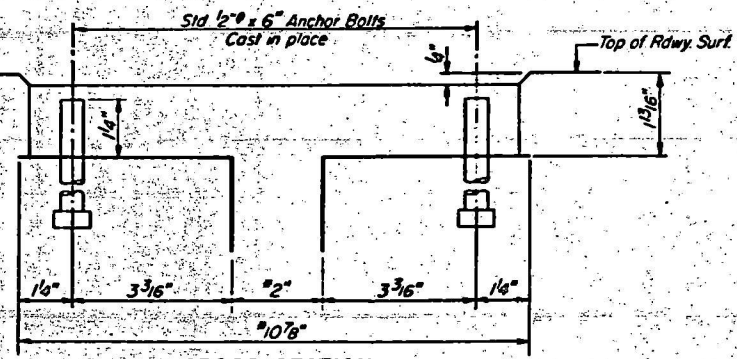
At 50°F
Dimensions are at right angles

Note: Anchor bolts require a flat washer and locknut.

FEL-SPAN MODEL T-30
(Fel-Pro Building Products Inc.)



PLAN

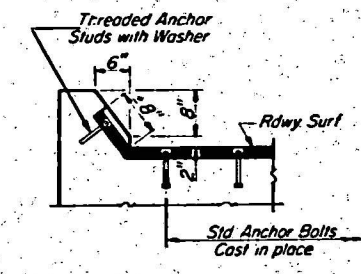
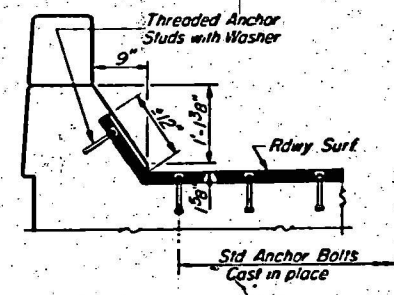


CROSS SECTION

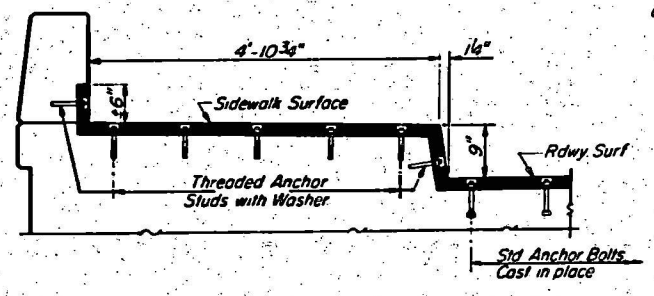
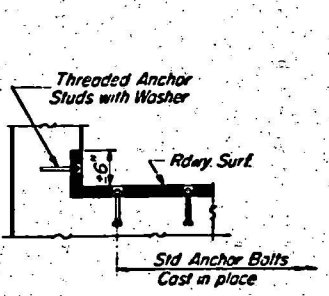
At 50°F
Dimensions are at right angles

Note: Anchor bolts require a clipped washer, lockwasher and hex nut.

WABOFLEX MODEL SR 2
(Watson-Bowman Associates Inc.)



AT CURBS



AT ABUTMENT

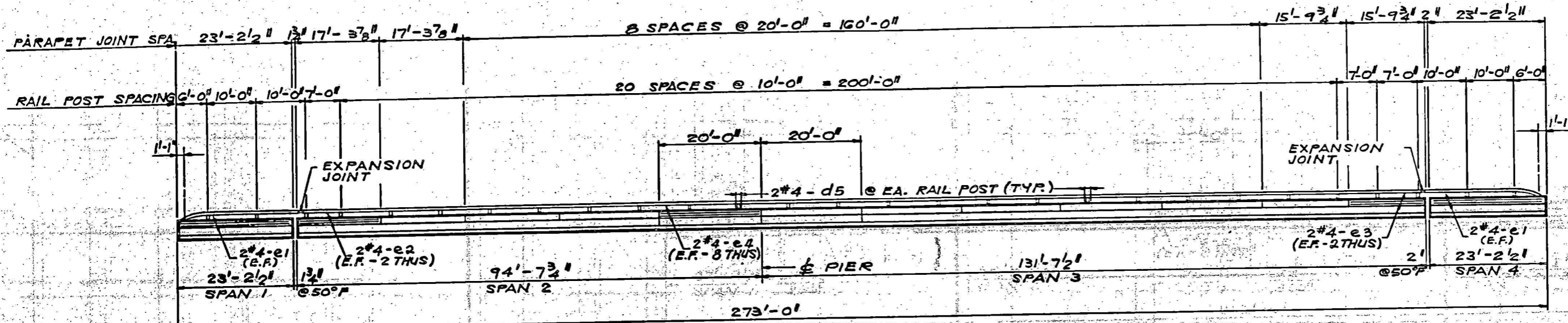
AT SIDEWALK

TYPICAL END TREATMENTS

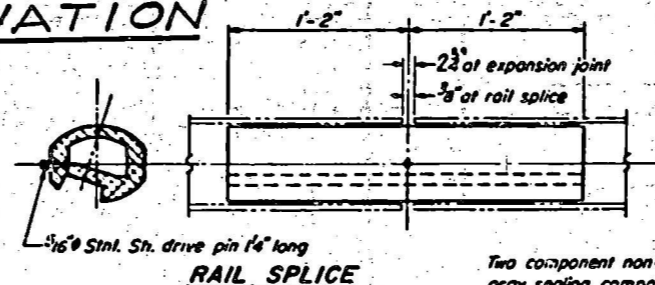
NOTE: Joint openings shall be adjusted in accordance with Article 503.07 (c) of the Std Spec's when the deck is poured at an ambient temperature other than 50°F.

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
JOB NO. 1605-L
233 N. MICHIGAN AVE., CHICAGO, ILLINOIS

NEOPRENE EXPANSION JOINT (2")
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
PROJECT
SECTION 201-3HB-3
WINNEBAGO COUNTY
STATION 753+57.61



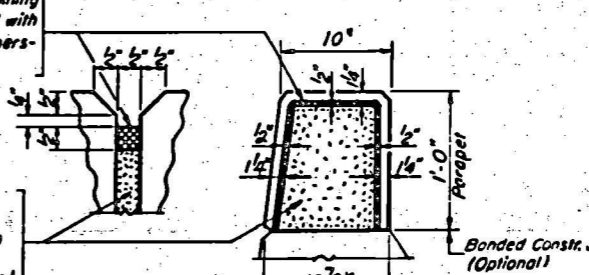
ELEVATION



RAIL SPLICE

Two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade with primer.

1/2" Preformed Cork Asphalt Joint Filler in accordance with articles 715.07 or 715.08 - cost incidental



PARAPET JOINT DETAIL

NOTE:
STAINLESS STEEL MACHINE BOLTS OR CAP SCREWS SHALL BE IN ACCORDANCE WITH ARTICLE 710.37 (a) OF THE STANDARD SPECIFICATIONS EXCEPT GRADE B8 OR B8 M MAY BE FURNISHED.

All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.

All joints in rail shall be spliced per detail.
Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts - Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.

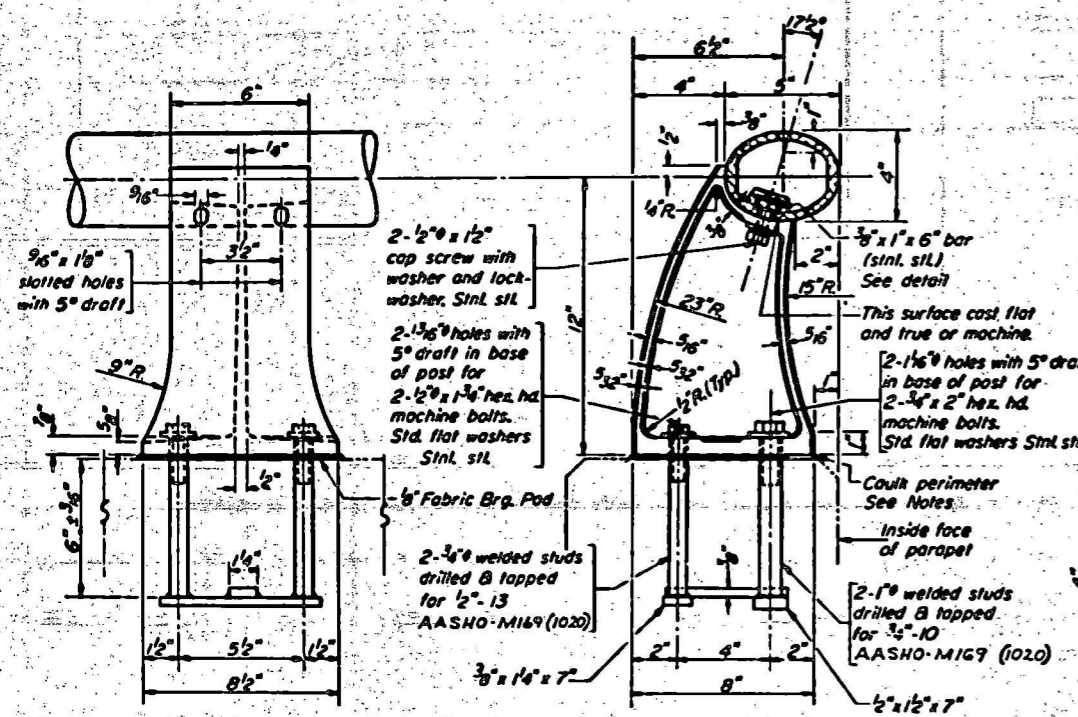
Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.

Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min yield 35 ksi, min tensile 38 ksi, and elongation of 10% in 2 inches.

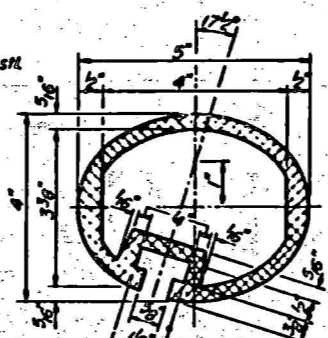
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
d5	112	44	2'-3"	□
e1	16	44	22'-9"	—
e2	16	44	16'-9"	—
e3	16	44	15'-3"	—
e4	64	44	19'-6"	—
CLASS 'X' CONCRETE				CU. YDS. 17.7
REINFORCEMENT BARS				LBS. 1,590
ALUMINUM RAILING				LIN. FT. 543

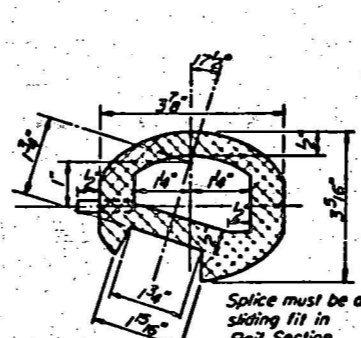
NOTE: ALL BAR DIMENSIONS ARE OUT TO OUT.



RAIL POST DETAILS

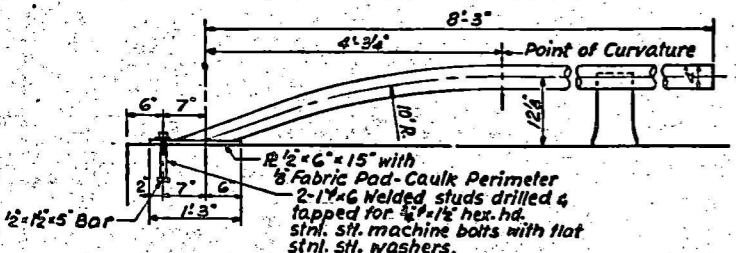


SEC. THRU ELLIPTICAL RAIL SECTION

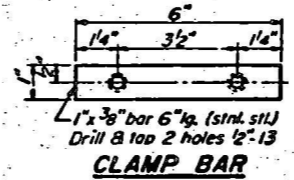


SEC. THRU SPLICE

NOTE: The end rail post shall be set back as required for the terminal rail section.



BRIDGE RAIL TERMINAL SECTION



CLAMP BAR

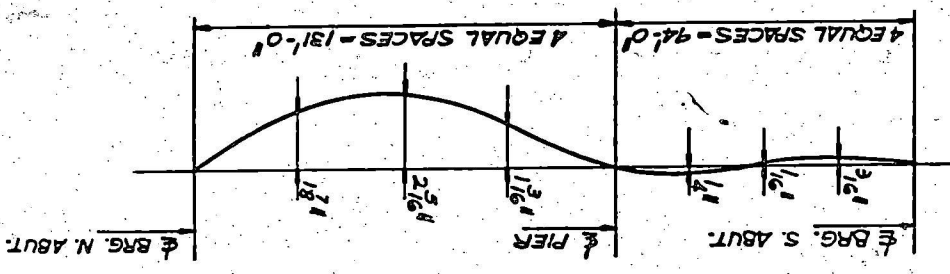
ALUMINUM RAILING DETAILS
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
PROJECT
SECTION 201-3HB-3
WINNEBAGO COUNTY
STATION 753+57.61

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 JOB NO. 1605-L
 233 W. MICHIGAN AVE. CHICAGO, ILLINOIS

TOP OF SLAB ELEVATIONS
 C.H. ROUTE 60 (MULFORD ROAD)
 OVER F.A. ROUTE 194
 PROJECT
 SECTION 201-3HB-3
 WINNEBAGO COUNTY
 STATION 753+57.61

ALFRED BERESCH & COMPANY
 CONSULTING ENGINEERS
 208 N. 16th St.
 CHICAGO, ILLINOIS

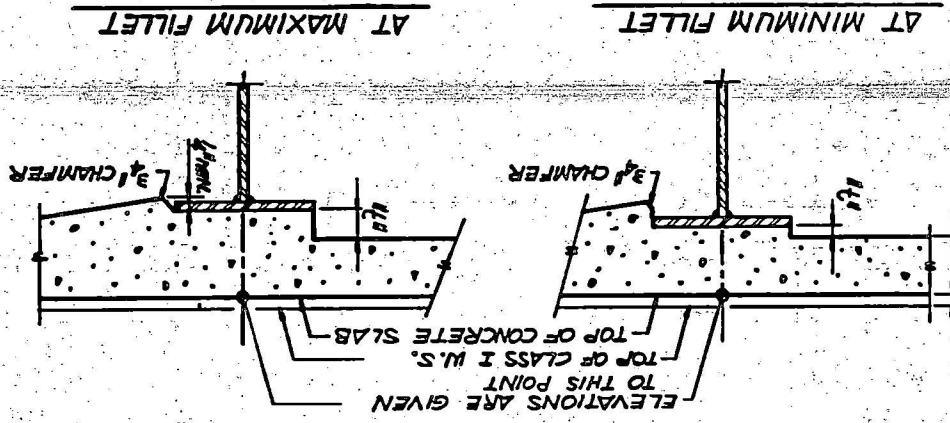
DEAD LOAD DEFLECTION DIAGRAM
 INCLUDES WEIGHT OF CONCRETE & INITIAL SUPERIMPOSED D.L. ONLY



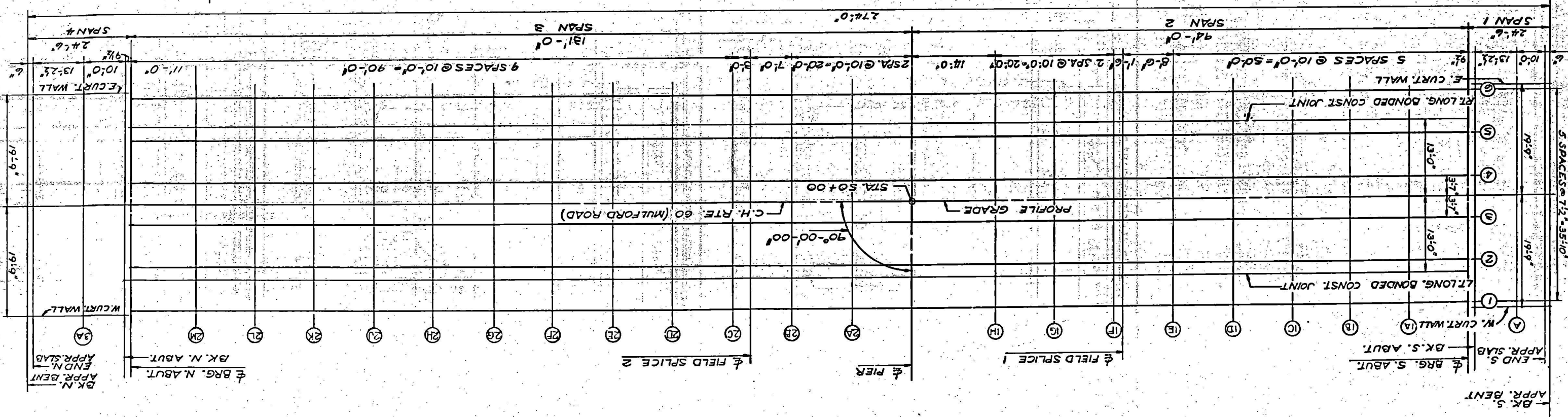
NOTE:
 THE ABOVE DEFLECTIONS ARE NOT TO BE USED IN THE FIELD IF THE ENGINEER IS
 WORKING FROM THE THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD
 DEFLECTION.

FILET 1/2" THICKNESS
 TO DETERMINE AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF
 THE TOP FLANGES OF THE GIRDERS SHALL BE TAKEN AT INTERVALS SHOWN. THESE
 ELEVATIONS SUBTRACTED FROM THE THEORETICAL GRADE ELEVATIONS ADJUSTED
 FOR DEAD DEFLECTION SHOWN ON SHEET 9, MINUS SLAB THICKNESS, EQUALS
 THE FILET HEIGHT 1/2" ABOVE TOP FLANGE OF THE GIRDERS.

FILET HEIGHTS



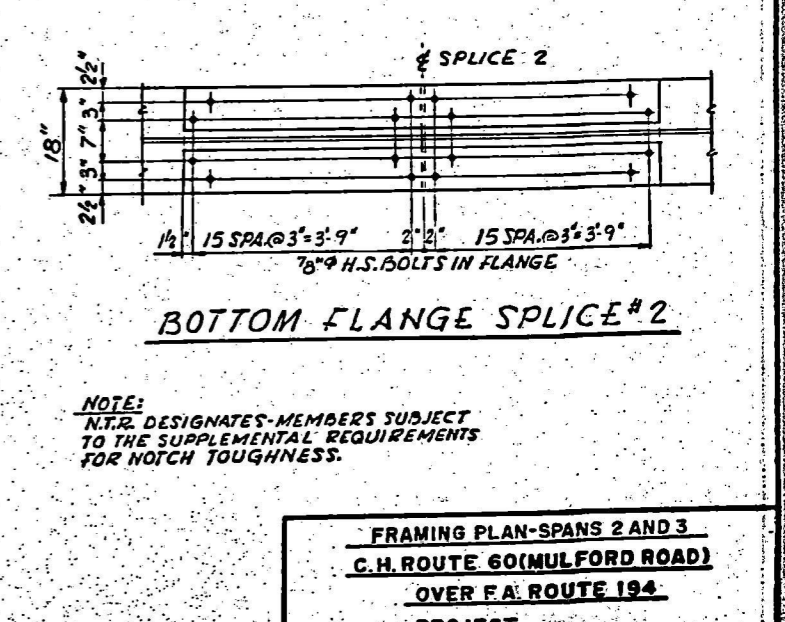
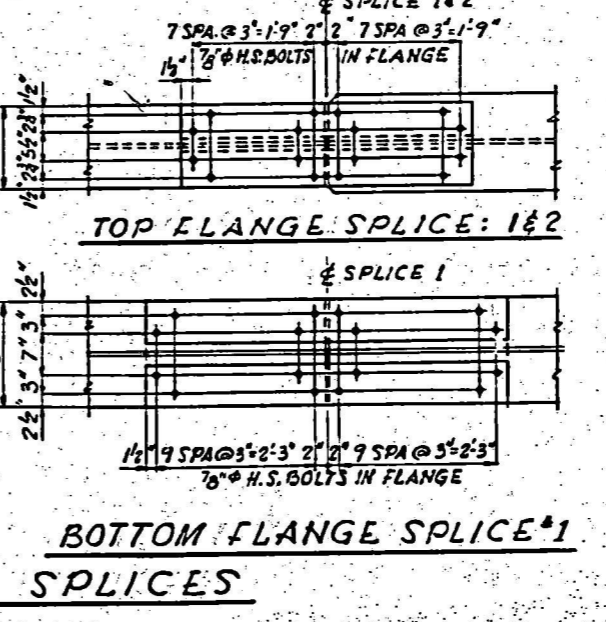
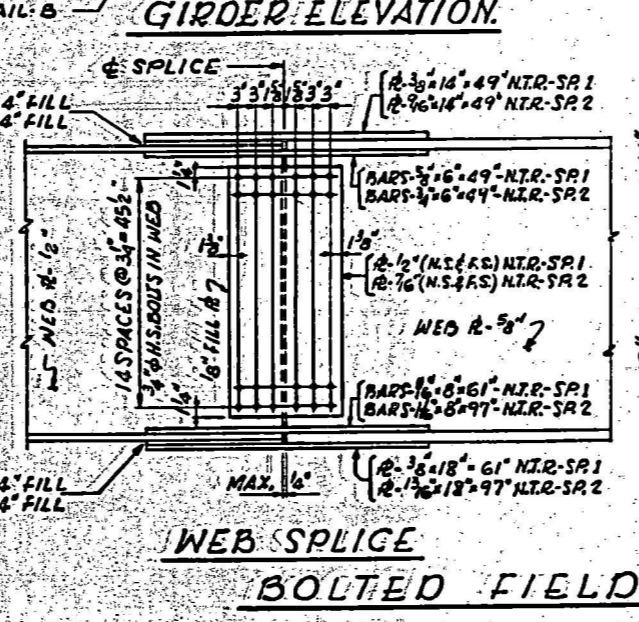
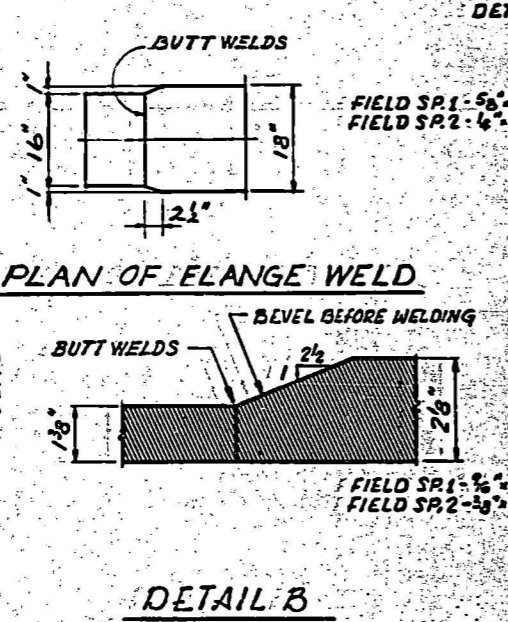
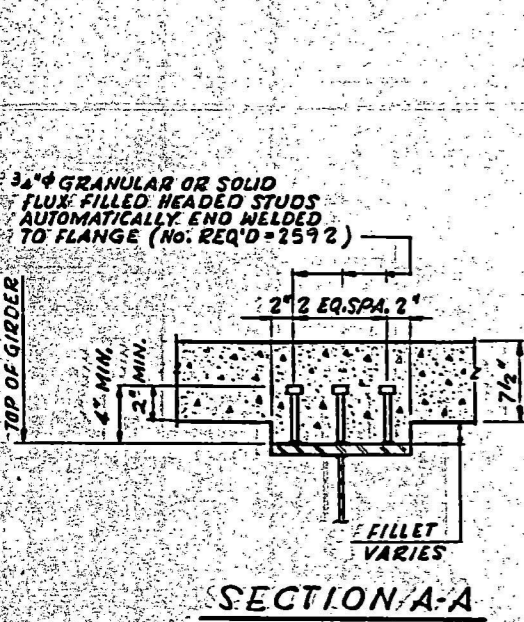
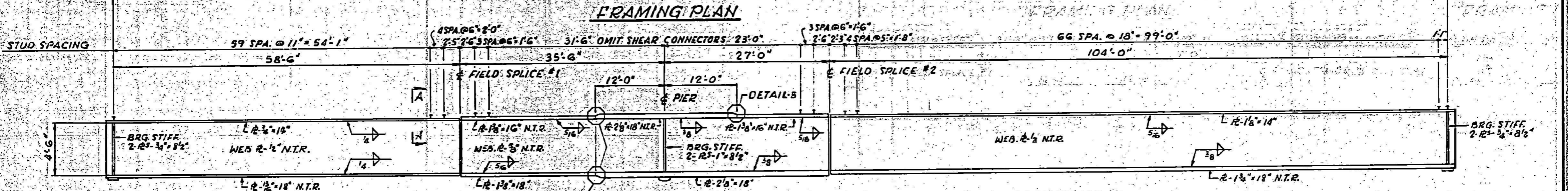
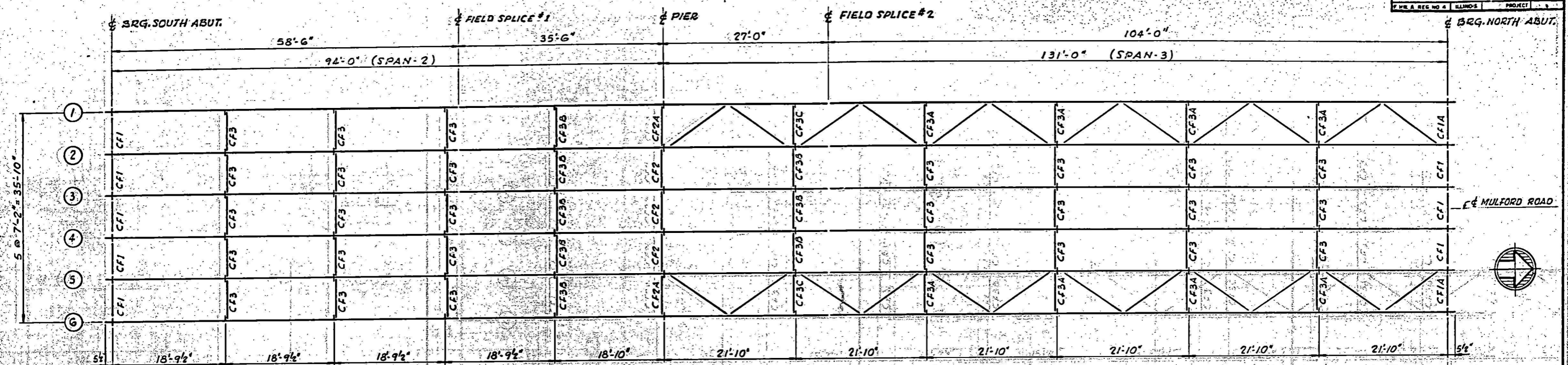
PLAN



ROUTE NO.	SECTION	COUNT	TOTAL SHEETS	SHEET NO.
FA 412	201-3HB3	WINNEBAGO	38	16
STA.	TO STA.	PROJECT		

SHEET 8 OF 17

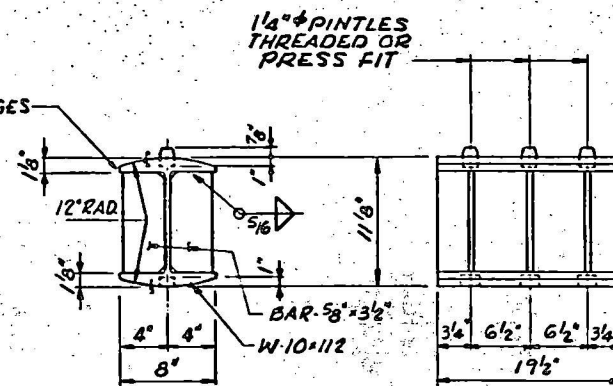
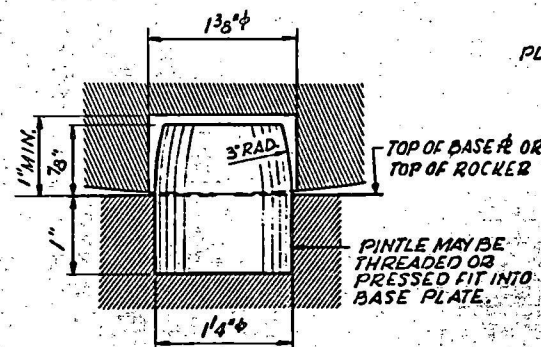
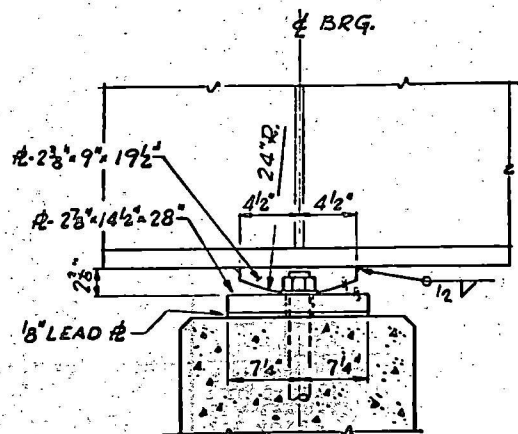
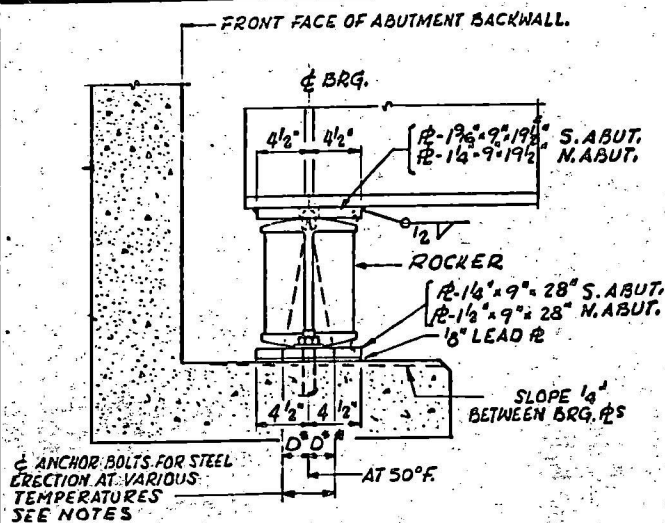
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. #12	201-3H-3	WINNEBAGO	38	18
STA.	TO STA.			
753+57.6	753+57.6			



NOTE:
N.T.R. DESIGNATES MEMBERS SUBJECT
TO THE SUPPLEMENTAL REQUIREMENTS
FOR NOTCH TOUGHNESS.

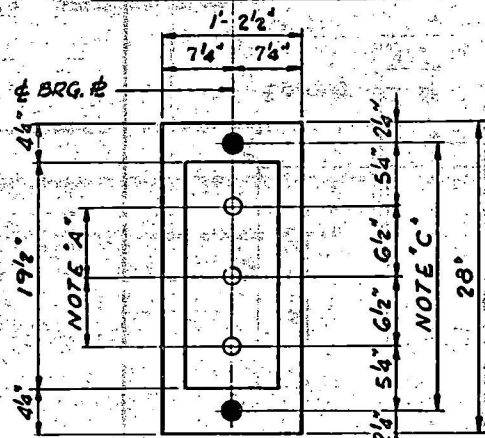
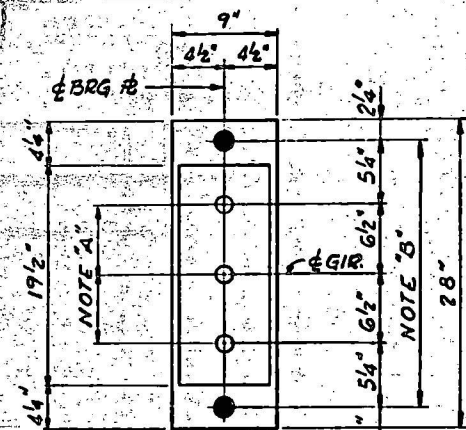
FRAMING PLAN-SPANS 2 AND 3
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
PROJECT
SECTION: 201-3H-3
WINNEBAGO COUNTY
STATION 753+57.61

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
JOB NO. 16-05-L
233 N. MICHIGAN AVE., CHICAGO, ILLINOIS



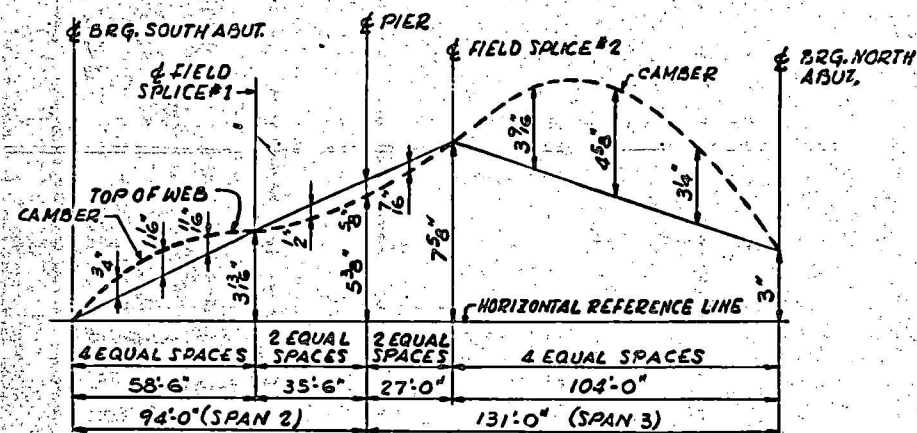
ELEVATION

ELEVATION



PLAN AT ABUTMENTS

PLAN AT PIER



CAMBER DIAGRAM

TOP OF WEB ELEVATIONS
(UNDEFLECTED GIRDERS - FOR FABRICATION ONLY)

GIRDER LOCATION	1	2	3	4	5	6
BRG. S. ABUT.	824.902	825.043	825.160	825.160	825.048	824.902
FIELD SPICE #1	825.230	825.375	825.487	825.487	825.375	825.230
PIER	825.349	825.495	825.608	825.608	825.495	825.349
FIELD SPICE #2	825.540	825.686	825.799	825.799	825.686	825.540
BRG. N. ABUT.	825.154	825.300	825.412	825.412	825.300	825.154

NOTE: ELEVATIONS ARE GIVEN TO TOP OF WEB.

REACTION TABLE

INTERIOR GIRDER REACTION TABLE			
LOCATION	SOUTH ABUT.	PIER	NORTH ABUT.
RDL (K)	37.1	211.1	74.0
RLI (K)	46.1	79.6	48.0
IMP (K)	10.5	16.8	9.3
RTOTAL (K)	93.7	307.5	131.3

MOMENT TABLE
(COMPOSITE IN POSITIVE MOMENT AREAS ONLY)

	INTERIOR GIRDER MOMENT TABLE		
	0.4 SPAN 2	PIER	0.6 SPAN 3
I_s (in ⁴)	25171	68478	40359
I_c (in ⁴)	60857	-	92773
S_s (in ³)	982	2351	1772
S_c (in ³)	1287	-	2267
D.L. (K/ft)	0.86	1.08	0.94
MDL (K)	296	1909	1284
$f_s DL$ (KSI)	3.62	9.75	8.70
$S DL$ (K/ft)	0.44	0.44	0.44
$M_s DL$ (K)	208	756	671
M_{LL} (K)	700	871	1140
M_{IMP} (K)	159	184	221
TOTAL (K)	1067	1811	2032
$f_s LL$ (KSI)	9.95	9.24	10.76
$f_s TOTAL$ (KSI)	13.57	18.99	19.46
V_R (K)	56.1	-	58.9

I_s AND S_s ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE STEEL SECTION.
 I_c AND S_c ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE COMPOSITE SECTION USED IN COMPUTING f_s .
 V_R IS THE MAXIMUM LL+IMPACT SHEAR RANGE IN SPAN.

NOTE "A"
 1-3/8" DIAMETER HOLES - 1" DEEP IN TOP PLATE FOR PINTLES. THREAD OR PRESS FIT PINTLES INTO BOTTOM PLATE.

NOTE "B"
 2" DIAMETER HOLES FOR 1 1/2" DIAMETER X 19" ANCHOR BOLTS. 3/8" X 3" X 3" PLATE WASHERS UNDER NUT.

NOTE "C"
 2" DIAMETER HOLES FOR 1 1/2" DIAMETER X 21" ANCHOR BOLTS. 3/8" X 3" X 3" PLATE WASHERS UNDER NUT.

NOTES ON SETTING OF ANCHOR BOLTS AT EXPANSION BEARINGS

D* (SIDE OF BEARING AWAY FROM FIXED BEARING)
 $D^* = 1/8"$ PER EACH 100' OF EXPANSION FOR EVERY 15° FALL BELOW THE NORMAL TEMP. OF 50° F.

D** (SIDE OF BEARING TOWARD FIXED BEARING)
 $D^{**} = 1/8"$ PER EACH 100' OF EXPANSION FOR EVERY 15° RISE ABOVE THE NORMAL TEMP. OF 50° F.

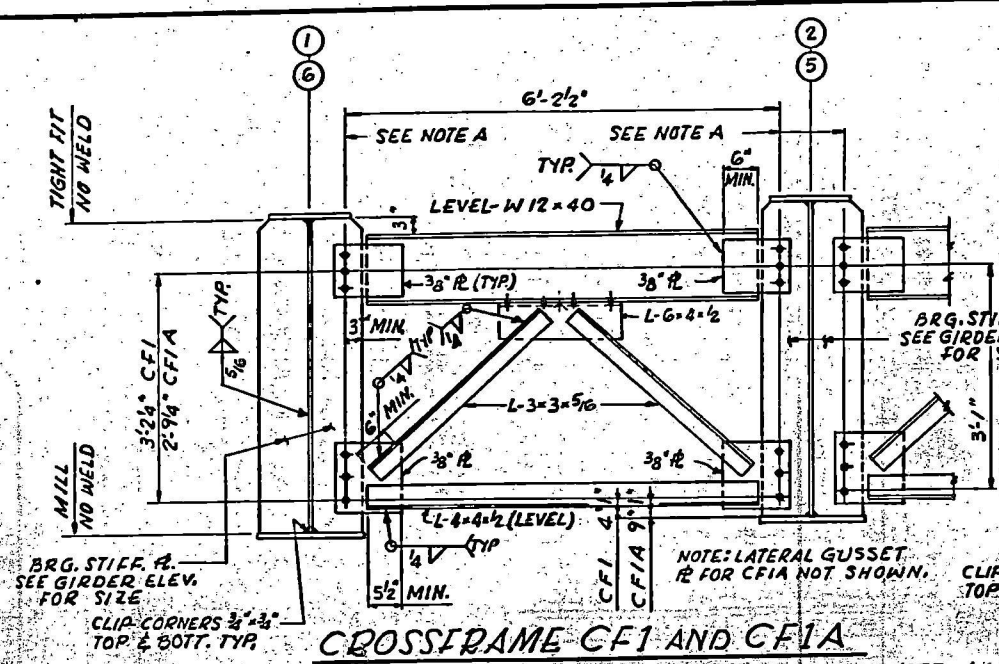
AFTER BEAMS HAVE BEEN ERECTED AND DIMENSIONS D* OR D** DETERMINED, HOLES SHALL BE DRILLED AND ANCHOR BOLTS SHALL BE GROUTED IN PLACE. ALL FIXED ANCHOR BOLTS MAY BE BUILT INTO THE MASONRY.

ALFRED DENESCH & COMPANY
 CONSULTING ENGINEERS
 JOB NO. 1605-L
 233 N. MICHIGAN AVE., CHICAGO, ILLINOIS

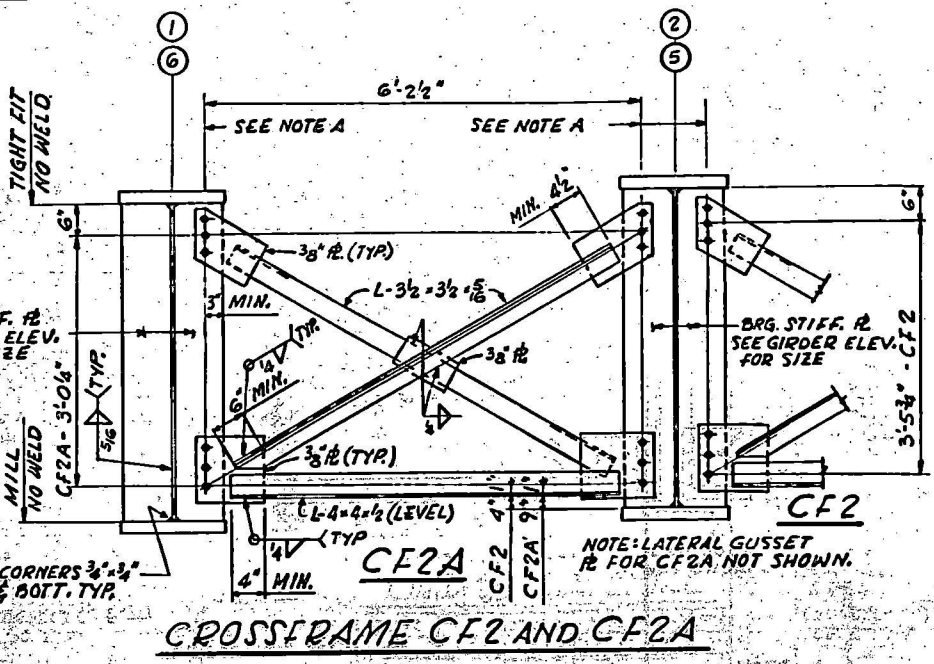
STEEL DETAILS
 C. H. ROUTE 60 (MULFORD ROAD)
 OVER FA. ROUTE 194
 PROJECT
 SECTION 201-3HB-3
 WINNEBAGO COUNTY
 STATION 753+57.61

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 412	201-3HB3	WINNEBAGO	38	20
STA.	TO STA.			
7. WE & RES. NO. 4	ILLINOIS		PROJECT	

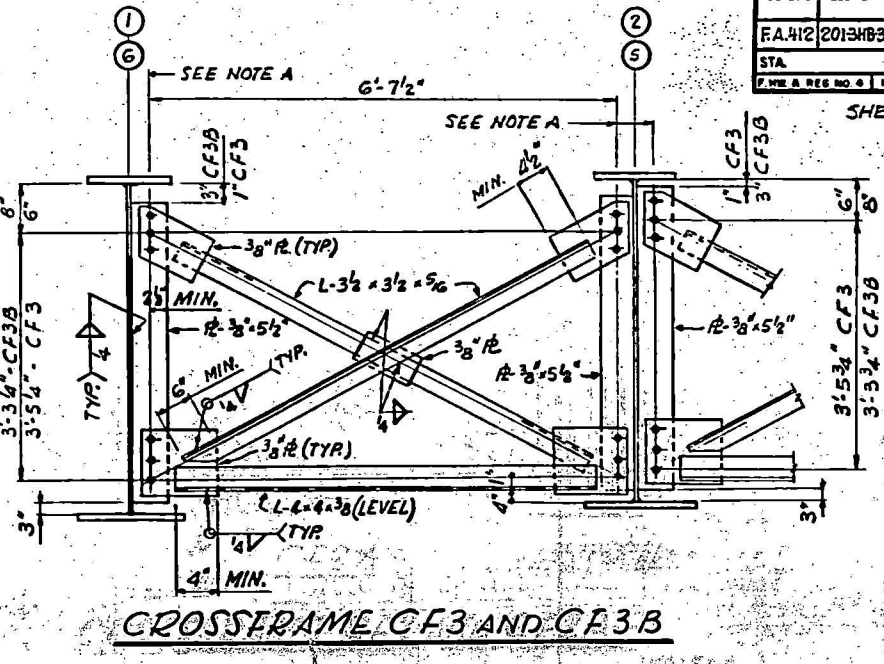
SHEET 12 OF 17



CROSSFRAME CF1 AND CF1A

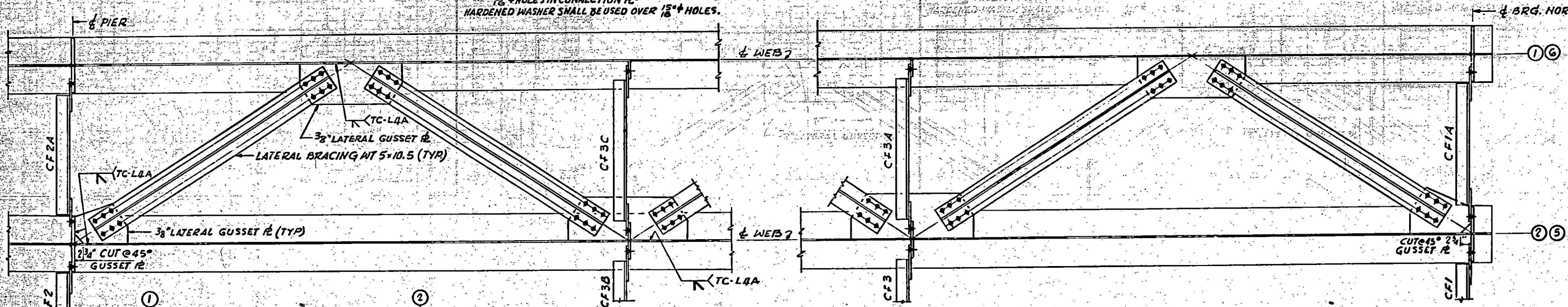


CROSSFRAME CF2 AND CF2A

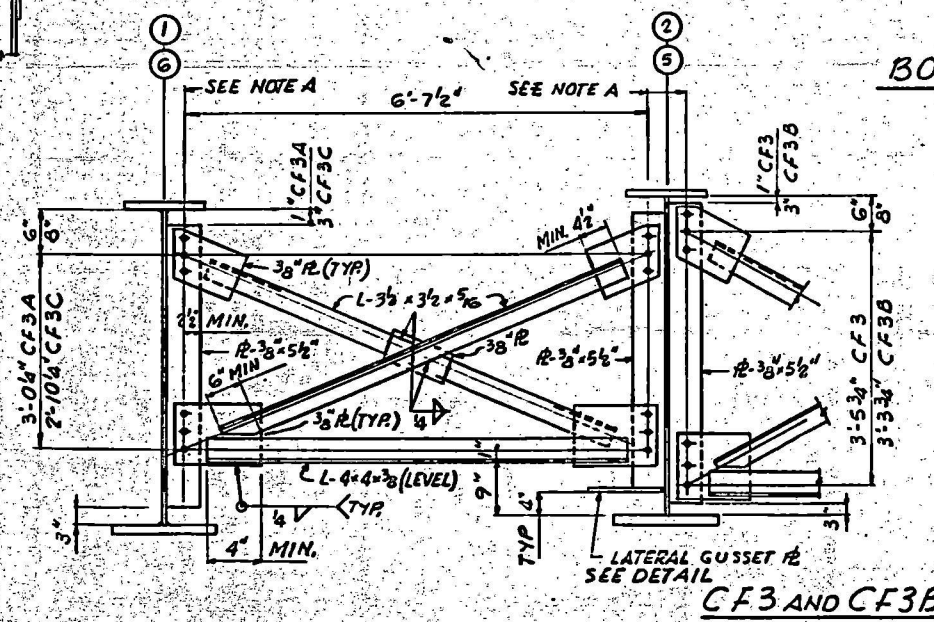


CROSSFRAME CF3 AND CF3B

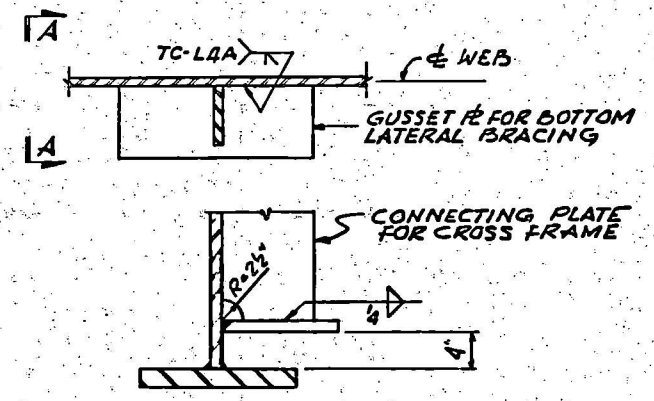
NOTE: A
 3/4" HIGH STRENGTH BOLTS
 1 1/2" HOLES IN CONNECTION R
 HARDENED WASHER SHALL BE USED OVER 1 5/8" HOLES.



BOTTOM LATERAL BRACING CONNECTIONS.



CROSSFRAME CF3A AND CF3C



SECTION A-A

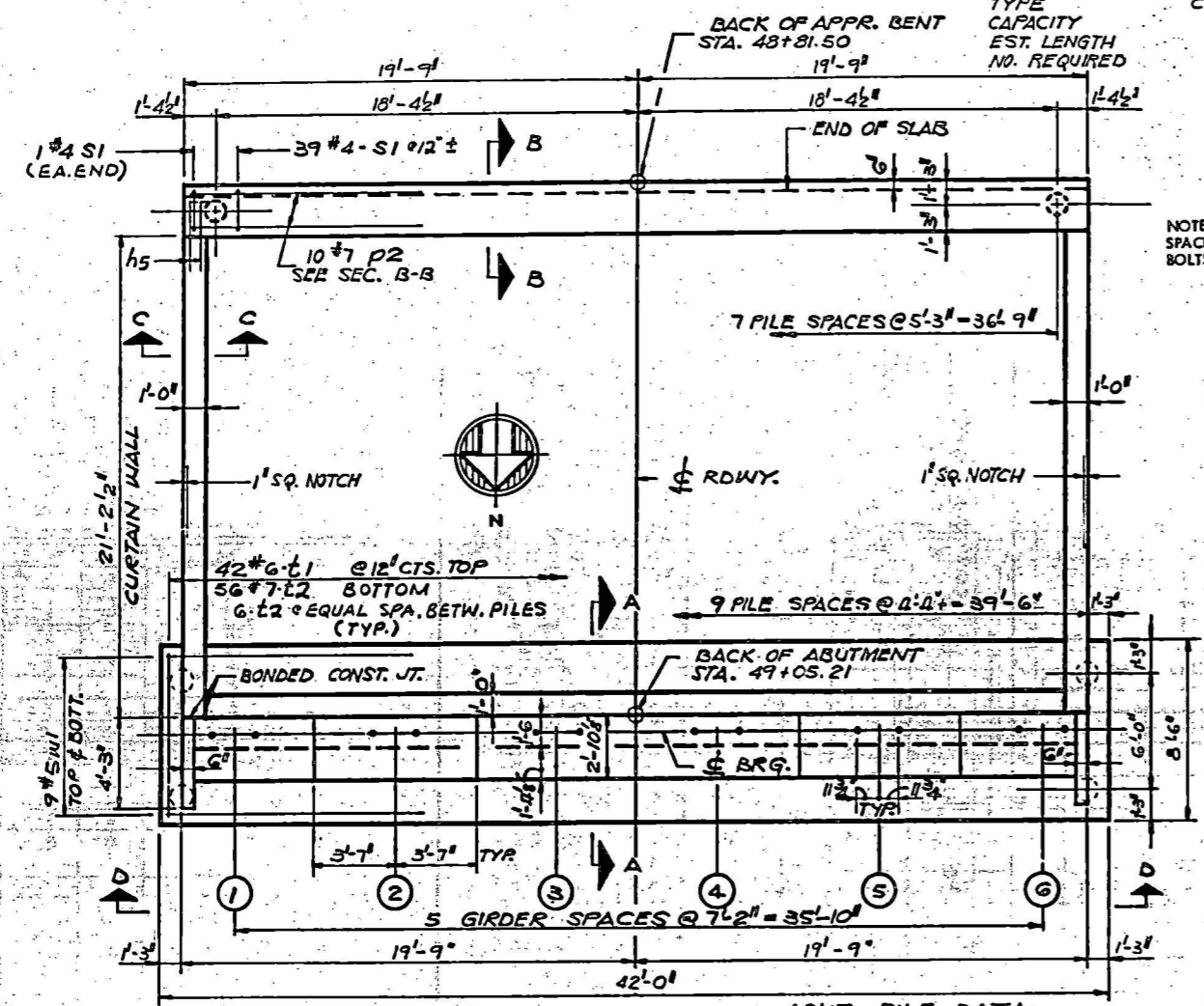
DETAIL FOR BOTTOM LATERAL CONNECTION

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 JOB NO. 1605-L
 233 N. MICHIGAN AVE., CHICAGO, ILLINOIS

CROSS FRAMES
 C.H. ROUTE 60 (MULFORD ROAD)
 OVER F.A. ROUTE 194
 PROJECT
 SECTION 201-3HB-3
 WINNEBAGO COUNTY
 STATION 753+57.61

APPR. BENT PILE DATA

TYPE	CONCRETE
CAPACITY	25 TON
EST. LENGTH	21 FT.
NO. REQUIRED	8

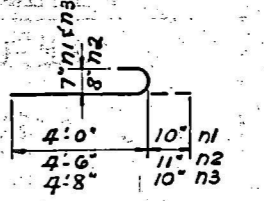
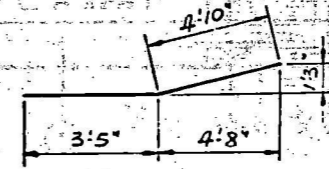
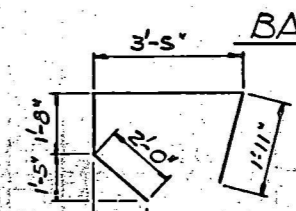
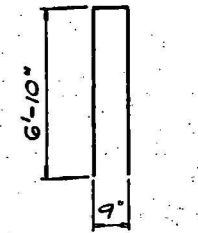
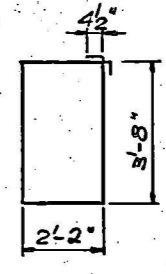
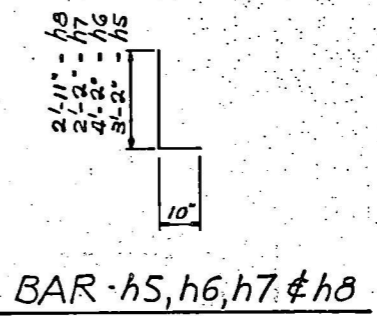


PLAN ABUT. PILE DATA

TYPE	CONCRETE
CAPACITY	35 TON
EST. LENGTH	23 FT.
NO. REQUIRED	20*

* INCLUDES ONE TEST PILE

NOTE: SPACE REINFORCEMENT UNDER BEARINGS TO MISS ANCHOR BOLTS. FOUR STEPS MONOLITHICALLY WITH CAP.

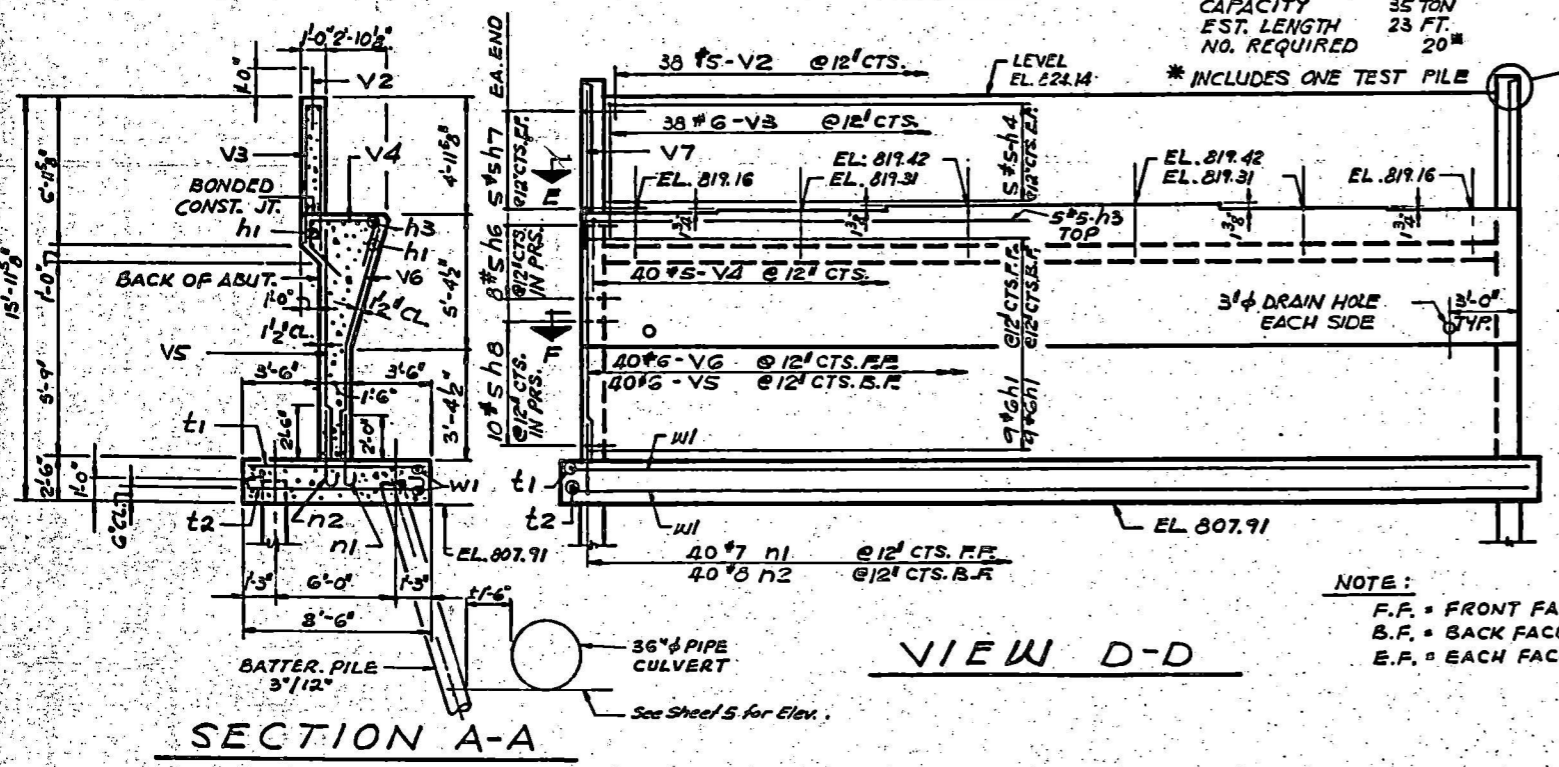


BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h1	18	#6	39'-0"	—
h3	5	#5	37'-0"	—
h4	10	#5	37'-0"	—
h5	20	#5	4'-0"	—
h6	16	#5	5'-0"	—
h7	10	#5	3'-0"	—
h8	20	#5	3'-9"	—
h9	12	#5	20'-9"	—
h10	12	#5	17'-0"	—
h11	14	#4	5'-6"	—
h12	16	#5	3'-3"	—
h13	4	#6	16'-0"	—
n1	40	#7	4'-10"	—
n2	40	#8	5'-5"	—
n3	16	#7	5'-6"	—
p2	10	#7	39'-0"	—
s1	41	#4	12'-5"	—
t1	42	#6	8'-0"	—
t2	56	#7	9'-8"	—
v2	104	#5	2'-6"	—
v3	38	#6	14'-5"	—
v4	40	#5	9'-0"	—
v5	40	#6	7'-0"	—
v6	40	#6	8'-3"	—
v7	10	#4	7'-0"	—
v8	24	#5	4'-11"	—
v9	26	#5	15'-6"	—
v10	16	#5	12'-6"	—
w1	18	#5	4'-6"	—
CLASS 'X' CONCRETE			CU.YD.	97.5
REINFORCEMENT BARS			LBS.	10,500
STRUCTURE EXCAVATION			CU.YD.	135.0
CONCRETE PILES			LIN. FT.	605.0
TEST PILE, CONCRETE			EA.	1

FIELD CUTTING DIAGRAM

NOTE: ALL BAR DIMENSIONS ARE OUT TO OUT. SEE SHEET #2 FOR ELECTRICAL DETAILS. FOR CURTAIN WALL DETAILS AND FOR SECTIONS B-B, C-C, E-E & F-F SEE SHT. #15.



SECTION A-A

NOTE: F.F. = FRONT FACE, B.F. = BACK FACE, E.F. = EACH FACE.

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
408 N. 160th St.
233 N. WICHITAN AVE., CHICAGO, ILLINOIS

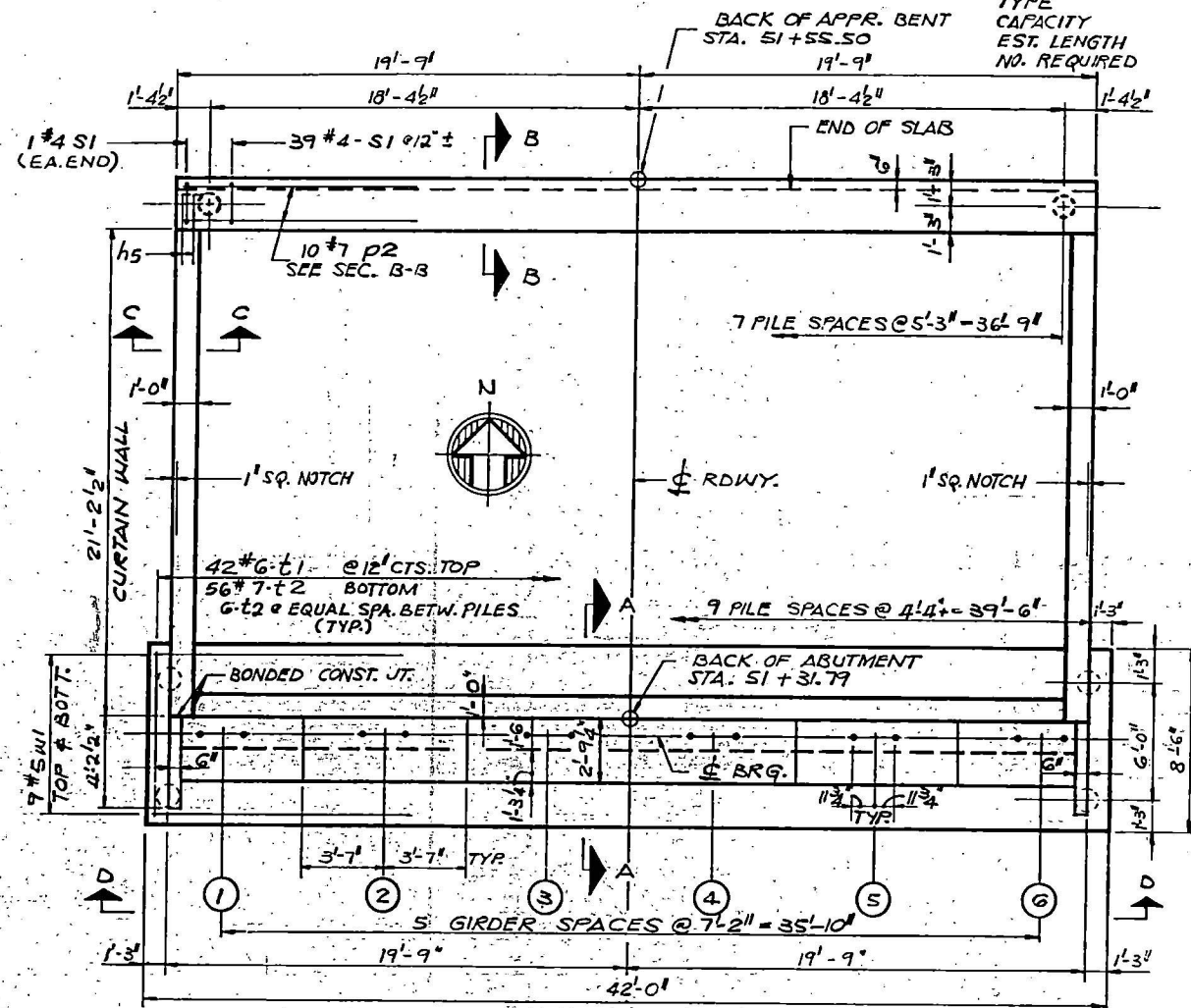
SOUTH ABUTMENT
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
PROJECT
SECTION 201-3HD-3
WINNEBAGO COUNTY
STATION 753+57.61

APPR. BENT PILE DATA

TYPE CONCRETE
CAPACITY 25 TON
EST. LENGTH 24 FT.
NO. REQUIRED 8

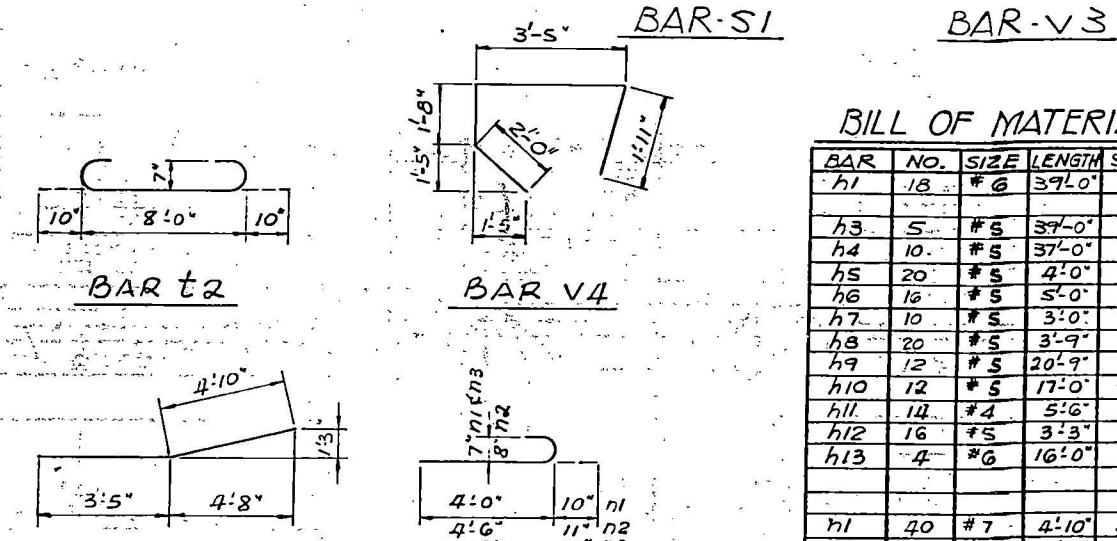
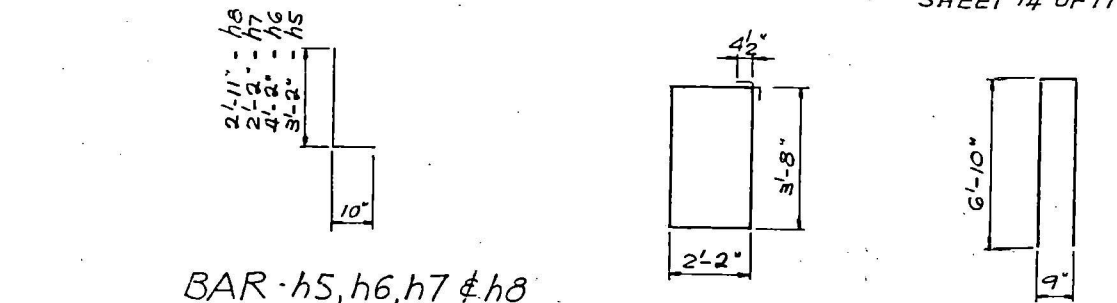
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 412	201-3HB-3	WINNEBAGO	38	22
STA. TO STA.				
P. NO. & REG. NO.			ILLINOIS PROJECT	

SHEET 14 OF 17



PLAN ABUT. PILE DATA

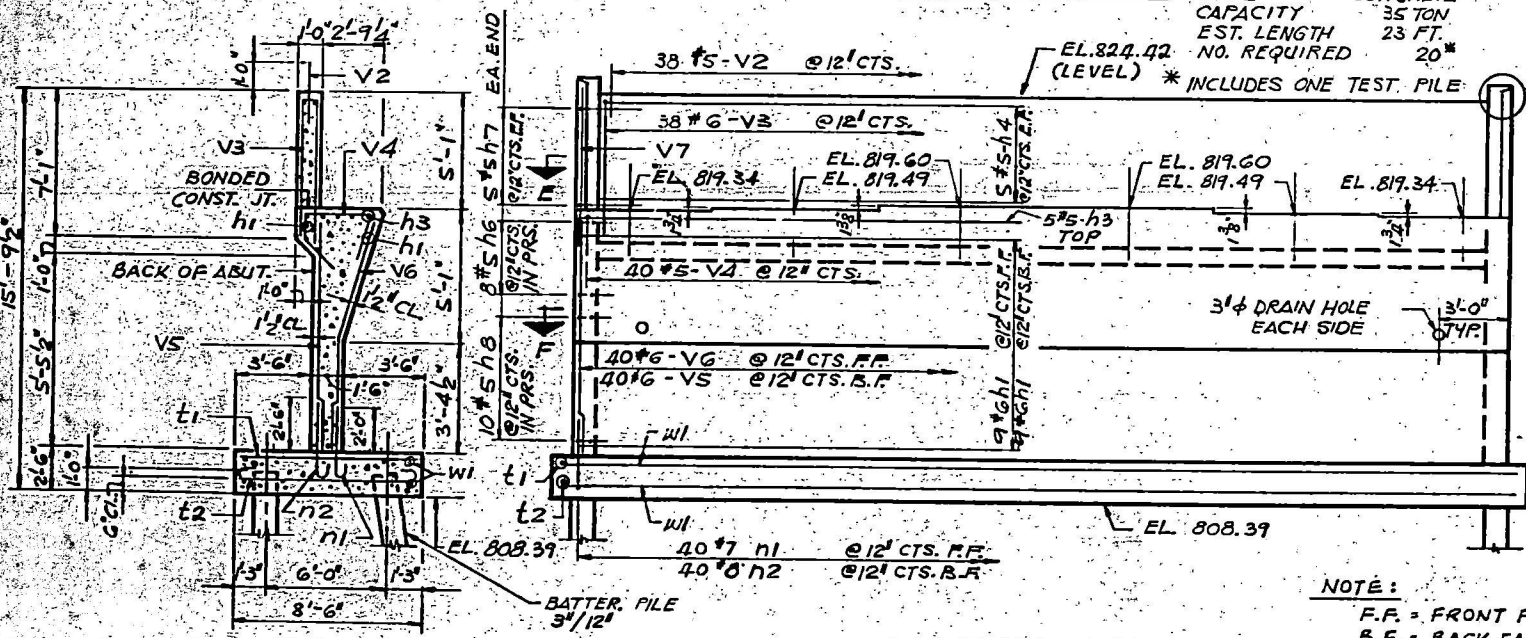
TYPE CONCRETE
CAPACITY 35 TON
EST. LENGTH 23 FT.
NO. REQUIRED 20
* INCLUDES ONE TEST PILE



BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	SHAPE
h1	#6	39'-0"	—
h3	#5	37'-0"	—
h4	#5	37'-0"	—
h5	#5	4'-0"	—
h6	#5	5'-0"	—
h7	#5	3'-0"	—
h8	#5	3'-9"	—
h9	#5	20'-9"	—
h10	#5	17'-0"	—
h11	#4	5'-6"	—
h12	#5	3'-3"	—
h13	#6	16'-0"	—
n1	#7	4'-10"	—
n2	#8	5'-5"	—
n3	#7	5'-6"	—
p2	#7	39'-0"	—
s1	#4	12'-5"	□
t1	#6	8'-0"	—
t2	#7	9'-8"	C
v2	#5	2'-6"	—
v3	#6	14'-5"	—
v4	#5	9'-0"	—
v5	#6	7'-0"	—
v6	#6	8'-3"	—
v7	#4	7'-0"	—
v8	#5	4'-11"	—
v9	#5	15'-6"	—
v10	#5	14'-6"	—
w1	#5	4'-6"	—

CLASS 'X' CONCRETE	CU. YD.	92.1
REINFORCEMENT BARS	LBS.	10,500
STRUCTURE EXCAVATION	CU. YD.	290
CONCRETE PILES	LIN. FT.	629
TEST PILE CONCRETE	EA	1



VIEW D-D

NOTE:
F.F. = FRONT FACE
B.F. = BACK FACE
E.F. = EACH FACE

FIELD CUTTING DIAGRAM

NOTE:
ALL BAR DIMENSIONS ARE OUT TO OUT.
SEE SHEET 13 FOR NOTES.
FOR CURTAIN WALL DETAILS AND FOR SECTIONS B-B, C-C, E-E & F-F SEE SHT. 15.

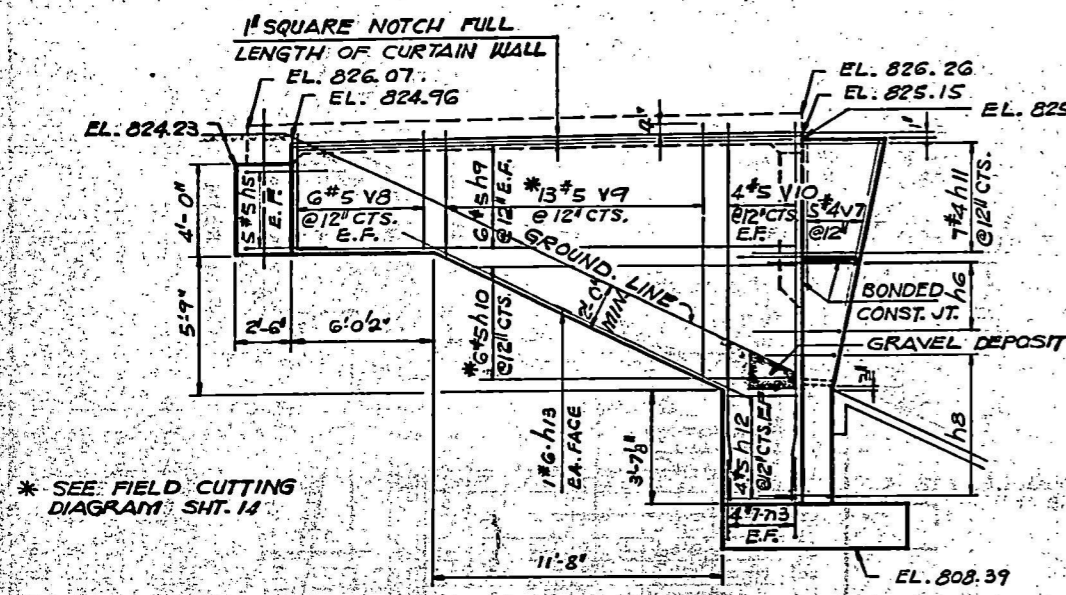
SECTION A-A

NORTH ABUTMENT
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
PROJECT
SECTION 201-3HB-3
WINNEBAGO COUNTY
STATION 753+57.61

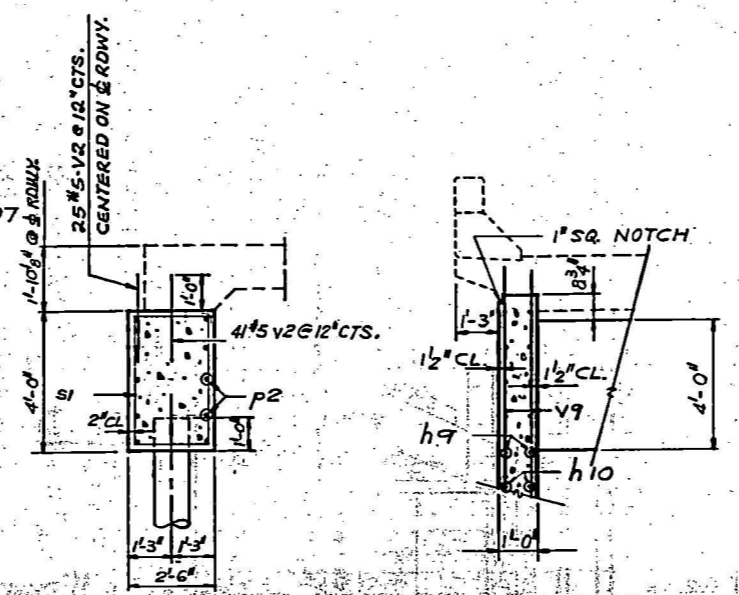
ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
JOB NO. 1605-1
233 N. MICHIGAN AVE. CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
E.A. 412	201-3HB-3	WINNEBAGO	38	23
STA.	TO STA.			
7. LINE A SEE NO. 4	ALIGN	PROJECT		

SHEET 15 OF 17

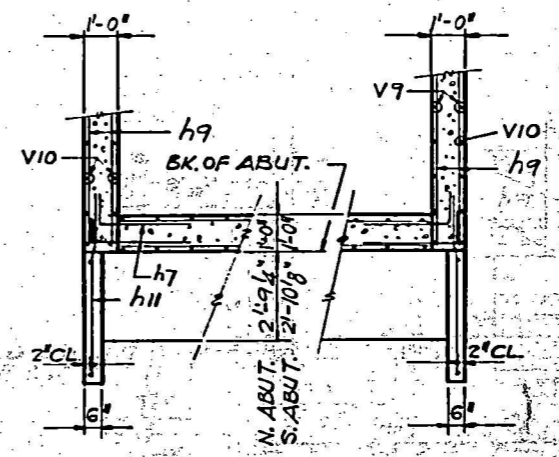


CURTAINWALL AT N. ABUT.

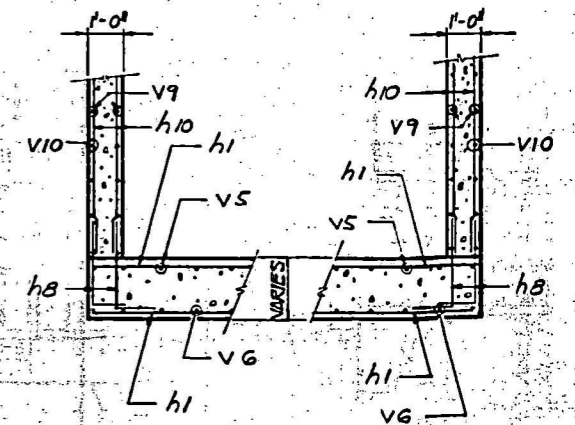


SECTION B-B

SECTION C-C

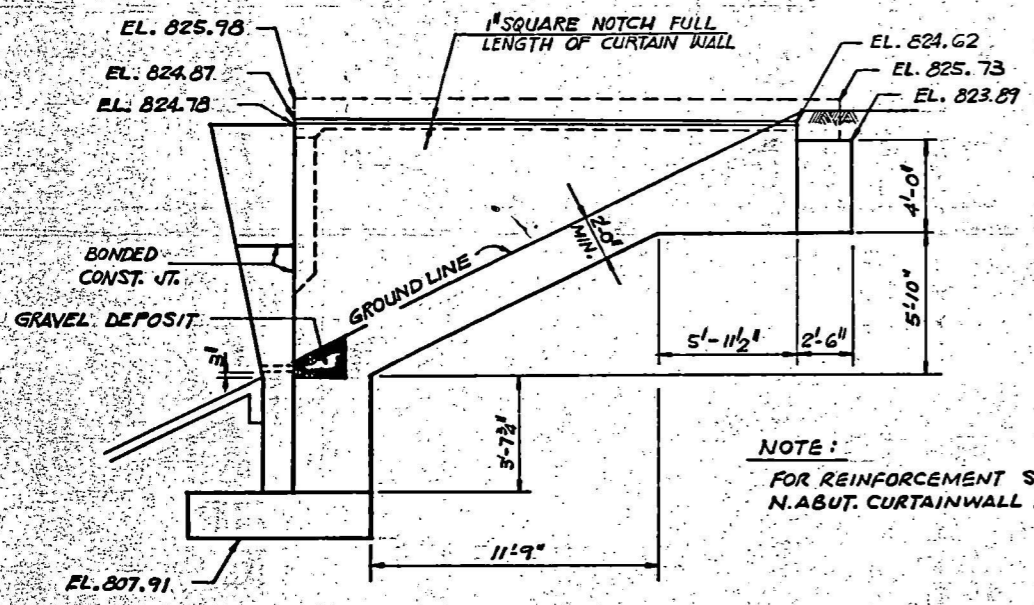


SECTION E-E



SECTION F-F

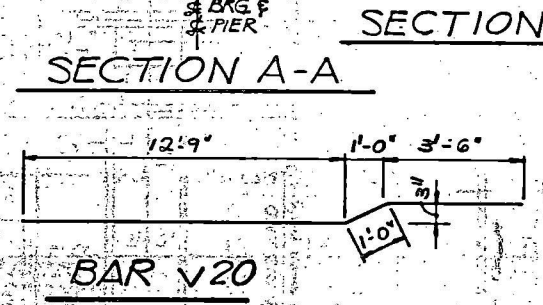
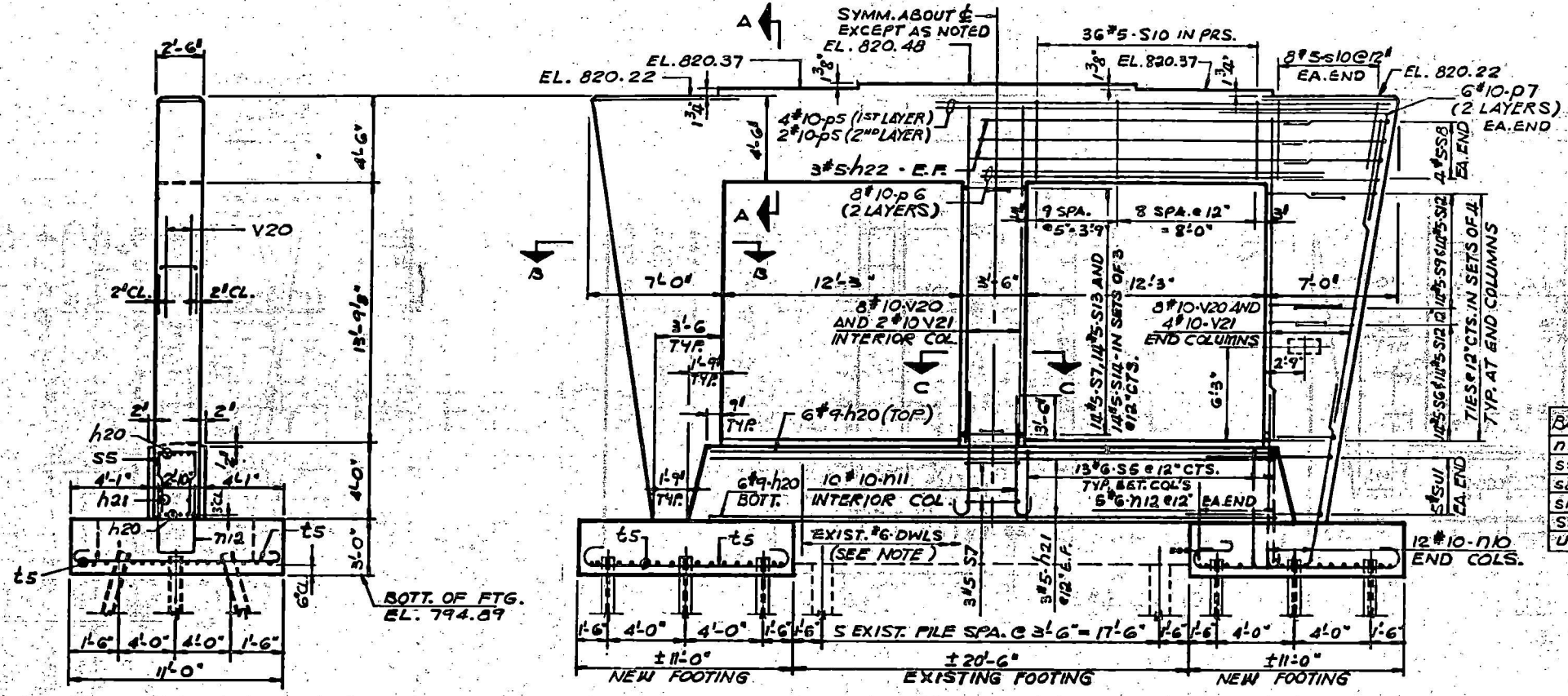
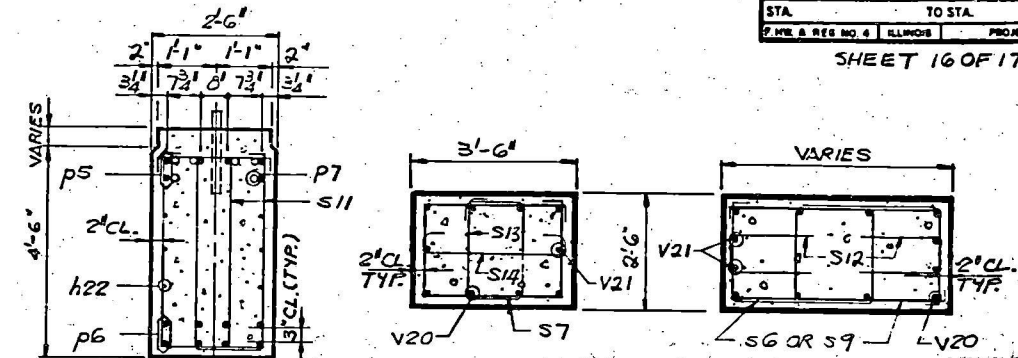
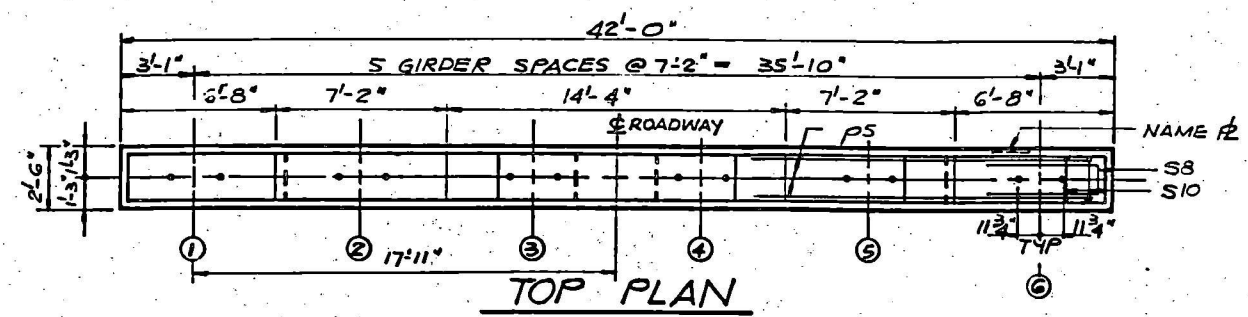
* SEE FIELD CUTTING DIAGRAM SHT. 14



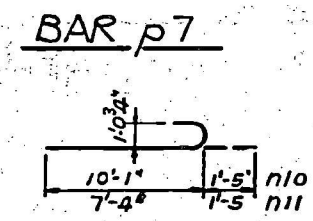
CURTAINWALL AT S. ABUT.

NOTE:
FOR REINFORCEMENT SEE N. ABUT. CURTAINWALL ABOVE.

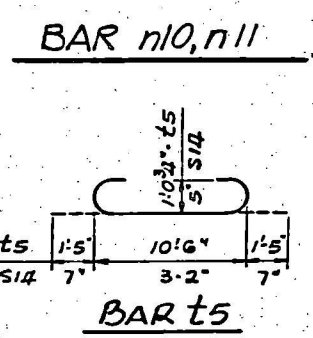
<p>ALFRED BENESCH & COMPANY CONSULTING ENGINEERS JOB NO. 1605-L 233 N. MICHIGAN AVE. CHICAGO, ILLINOIS</p>	<p>ABUTMENT DETAILS C.H. ROUTE 60 (MULFORD ROAD) OVER F.A. ROUTE 194 PROJECT SECTION 201-3HB-3 WINNEBAGO COUNTY STATION 753 + 57.61</p>
--	---



BAR	A	B
n12	2'-6"	4'-3"
S5	2'-6"	3'-10"
S8	2'-0"	6'-6"
S10	2'-2"	4'-2"
S12	1'-1"	7'-8"
U1	2'-2"	5'-0"



BAR	C	D
S6	2'-2"	3'-10"
S7	2'-2"	3'-2"
S9	2'-2"	5'-1"
S11	1'-7"	4'-2"
S13	2'-2"	1'-3"

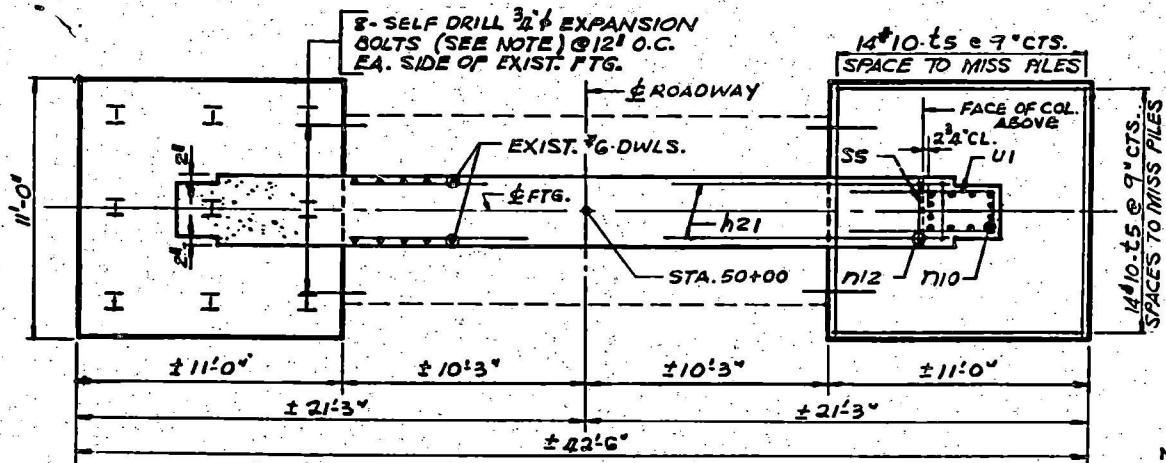


BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h20	12	#9	29'-0"	—
h21	6	#5	29'-0"	—
h22	6	#5	31'-0"	—
n10	24	#10	11'-6"	┌
n11	10	#10	8'-9"	┌
n12	10	#6	11'-0"	┌
p5	6	#10	41'-6"	—
p6	8	#10	34'-0"	—
p7	12	#10	17'-0"	—
S5	26	#6	10'-2"	┌
S6	28	#5	13'-0"	┌
S7	17	#5	11'-8"	┌
S8	8	#5	15'-2"	┌
S9	28	#5	15'-6"	┌
S10	16	#5	10'-6"	┌
S11	72	#5	12'-6"	┌
S12	56	#5	4'-3"	┌
S13	14	#5	7'-10"	┌
S14	14	#5	4'-4"	┌
t5	56	#10	13'-4"	┌
U1	10	#5	12'-6"	┌
V20	24	#10	17'-3"	┌
V21	10	#10	17'-3"	┌
CLASS X CONCRETE	CU.YD.	77.3		
REINFORCEMENT BARS	LBS.	15,380		
STRUCTURE EXCAVATION	CU.YD.	145.0		
STEEL PILES (HP 8x36)	LN. FT.	170.0		
TEST PILE, STEEL	EA.	1		
EXPANSION BOLTS, 3/4"	EA.	16		

END VIEW

PIER PILE DATA
 TYPE: STEEL (HP 8x36)
 CAPACITY: 45 TON
 EST. LENGTH: 10 FT.
 NO. REQUIRED: 16
 *INCLUDES ONE TEST PILE

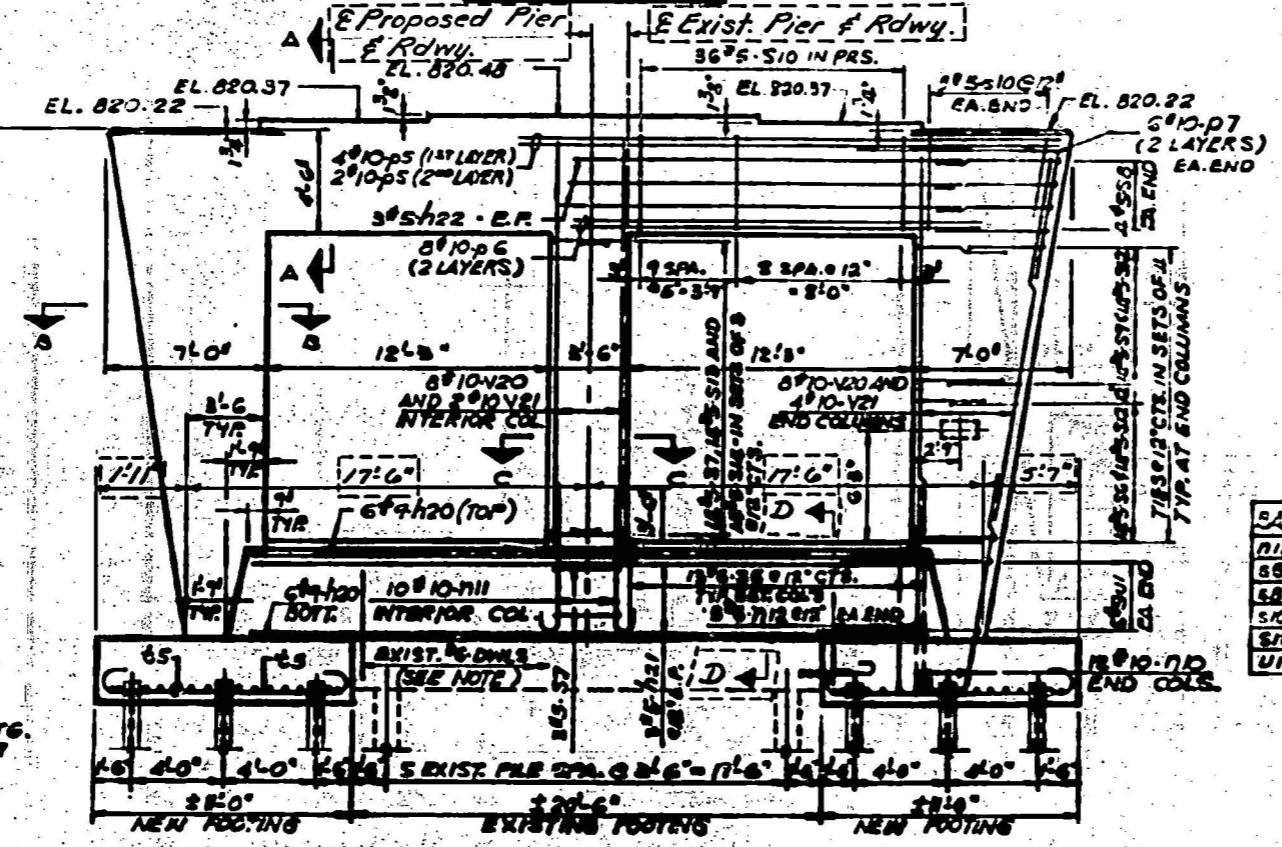
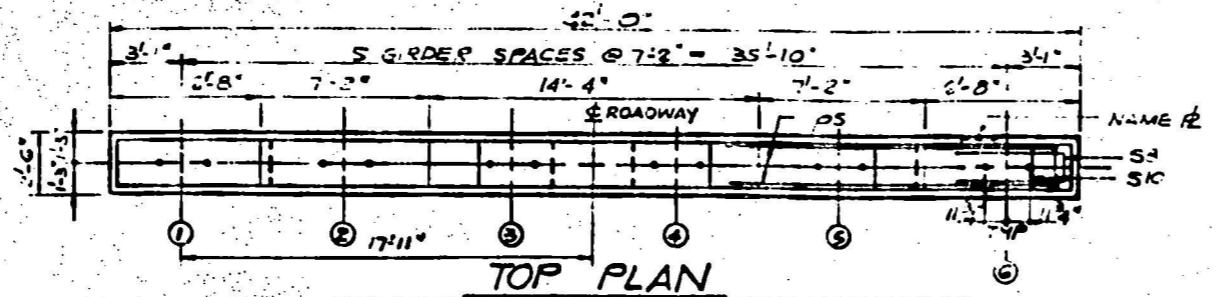


NOTE:
 ALL BAR DIMENSIONS ARE OUT TO OUT.

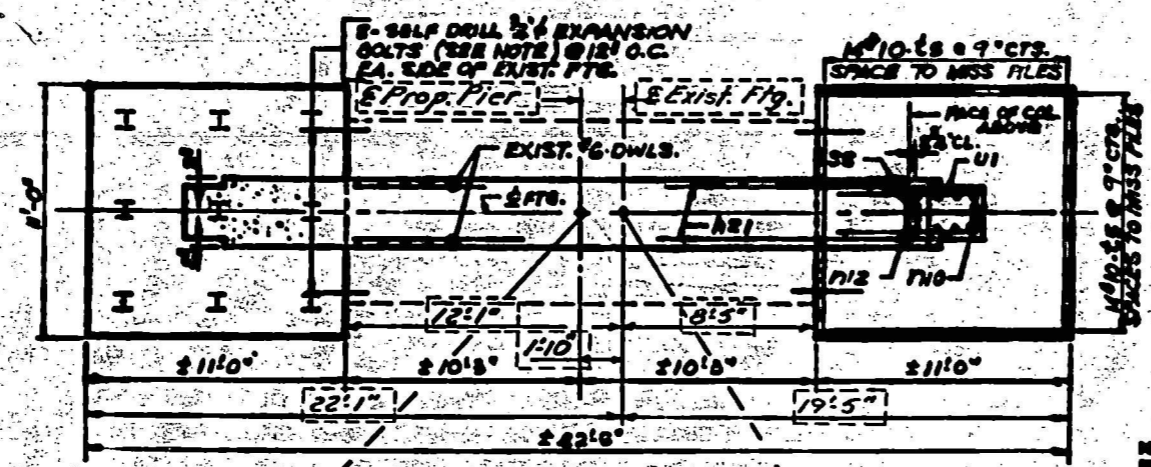
NOTE:
 PIER SHAFT TO BE REMOVED TO THE TOP OF FOOTING. THE EXISTING DOWEL BARS SHALL BE CLEANED AND REUSED AS SHOWN. CARE SHALL BE TAKEN IN PLACING THE DRILLED IN ANCHORS TO AVOID INTERFERENCE WITH THE EXISTING FOOTING REINFORCEMENT. THE FOOTING CONCRETE SHALL BE REMOVED AS NECESSARY TO EXPOSE THE REINFORCEMENT BEFORE DRILLING IN THE INSERTS.

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 JOB NO. 1605-L
 233 N. MICHIGAN AVE., CHICAGO, ILLINOIS

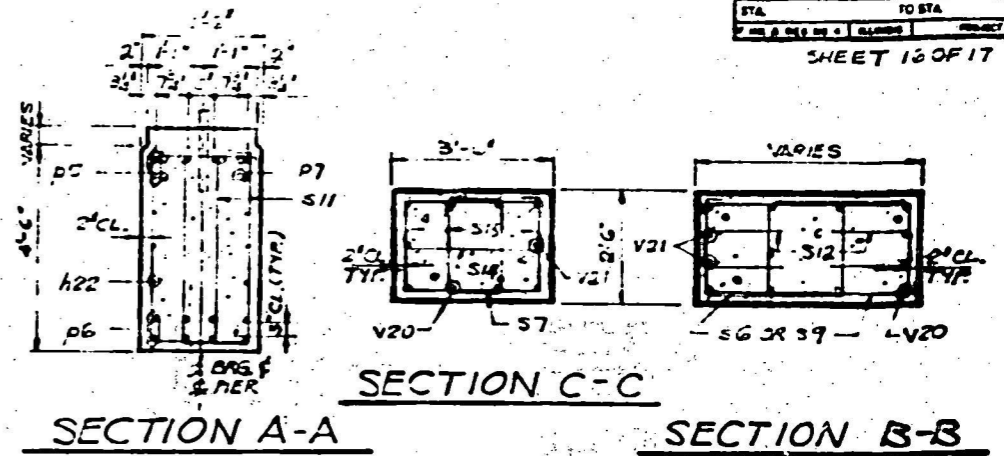
PIER
C.H. ROUTE 60 (MULFORD ROAD)
OVER F.A. ROUTE 194
 PROJECT
SECTION 201-3HB-3
WINNEBAGO COUNTY
STATION 753+57.61



ELEVATION

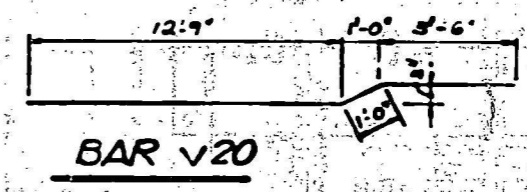


FOOTING PLAN



SECTION A-A

SECTION B-B

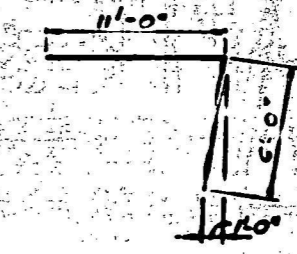
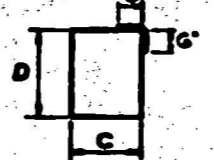


BAR v20

BAR	A	B
n12	2'-6"	4'-3"
h5	2'-6"	3'-10"
h8	2'-0"	2'-8"
s10	2'-2"	4'-8"
s11	1'-1"	1'-8"
u1	2'-3"	5'-0"



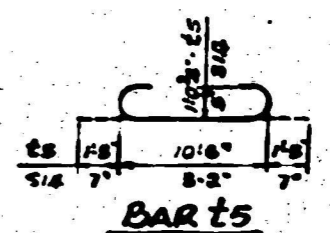
BAR	C	D
h9	2'-3"	3'-0"
s7	2'-8"	3'-2"
s9	2'-7"	6'-1"
s11	1'-7"	4'-3"
s13	3'-3"	1'-9"



BAR p7



BAR n10, n11

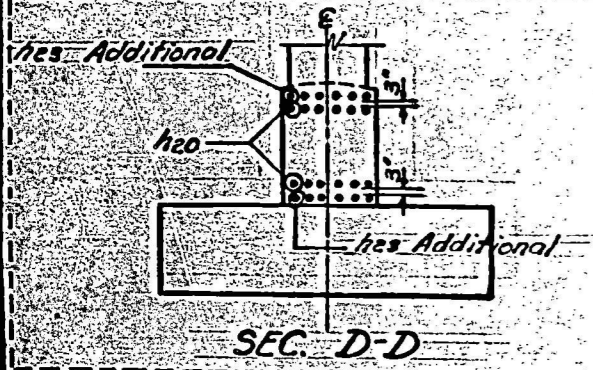


BAR t5

BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	QUANTITY
h20	12	9'-9"	34-0
h21	6	5'-5"	27-0
h22	6	5'-5"	37-0
h23	12	10'-0"	29-0
h24	12	10'-0"	29-0
h25	12	10'-0"	29-0
h26	12	10'-0"	29-0
h27	12	10'-0"	29-0
h28	12	10'-0"	29-0
h29	12	10'-0"	29-0
h30	12	10'-0"	29-0
h31	12	10'-0"	29-0
h32	12	10'-0"	29-0
h33	12	10'-0"	29-0
h34	12	10'-0"	29-0
h35	12	10'-0"	29-0
h36	12	10'-0"	29-0
h37	12	10'-0"	29-0
h38	12	10'-0"	29-0
h39	12	10'-0"	29-0
h40	12	10'-0"	29-0
h41	12	10'-0"	29-0
h42	12	10'-0"	29-0
h43	12	10'-0"	29-0
h44	12	10'-0"	29-0
h45	12	10'-0"	29-0
h46	12	10'-0"	29-0
h47	12	10'-0"	29-0
h48	12	10'-0"	29-0
h49	12	10'-0"	29-0
h50	12	10'-0"	29-0
h51	12	10'-0"	29-0
h52	12	10'-0"	29-0
h53	12	10'-0"	29-0
h54	12	10'-0"	29-0
h55	12	10'-0"	29-0
h56	12	10'-0"	29-0
h57	12	10'-0"	29-0
h58	12	10'-0"	29-0
h59	12	10'-0"	29-0
h60	12	10'-0"	29-0
h61	12	10'-0"	29-0
h62	12	10'-0"	29-0
h63	12	10'-0"	29-0
h64	12	10'-0"	29-0
h65	12	10'-0"	29-0
h66	12	10'-0"	29-0
h67	12	10'-0"	29-0
h68	12	10'-0"	29-0
h69	12	10'-0"	29-0
h70	12	10'-0"	29-0
h71	12	10'-0"	29-0
h72	12	10'-0"	29-0
h73	12	10'-0"	29-0
h74	12	10'-0"	29-0
h75	12	10'-0"	29-0
h76	12	10'-0"	29-0
h77	12	10'-0"	29-0
h78	12	10'-0"	29-0
h79	12	10'-0"	29-0
h80	12	10'-0"	29-0
h81	12	10'-0"	29-0
h82	12	10'-0"	29-0
h83	12	10'-0"	29-0
h84	12	10'-0"	29-0
h85	12	10'-0"	29-0
h86	12	10'-0"	29-0
h87	12	10'-0"	29-0
h88	12	10'-0"	29-0
h89	12	10'-0"	29-0
h90	12	10'-0"	29-0
h91	12	10'-0"	29-0
h92	12	10'-0"	29-0
h93	12	10'-0"	29-0
h94	12	10'-0"	29-0
h95	12	10'-0"	29-0
h96	12	10'-0"	29-0
h97	12	10'-0"	29-0
h98	12	10'-0"	29-0
h99	12	10'-0"	29-0
h100	12	10'-0"	29-0

PIER FILE DATA
 TYPE: STEEL (HP 8x16C)
 CAPACITY: 45 TON
 EXIST. LENGTH: 16 FT.
 NO. REQUIRED: 8
 *INCLUDES ONE TEST FILE



SEC. D-D

NOTE:
 ALL BAR DIMENSIONS ARE OUT TO OUT.

NOTE:
 THE BRACKET TO BE REMOVED TO THE TOP OF FOOTING. THE BRACKET SHALL BE GRABBED AND REMOVED AS SHOWN. CARE SHALL BE TAKEN IN PLACING THE BRACKET IN ANCHORS TO AVOID OVERLAP. USE THE BRACKET FOOTING REINFORCEMENT. THE FOOTING CONCRETE SHALL BE REMOVED AS NECESSARY TO EXPOSE THE BRACKET BEFORE BRILLING IN THE BRACKET.

FOR
C. M. ROUTE CONSTRUCTION
BY E. A. GARDNER, INC.
PROJECT
SECTION
DATE
STATION

ALFRED BERNECH & COMPANY
 ENGINEERS
 200 W. 104th St.
 MINNEAPOLIS, MINN.

